Unit ID Waterbody Name City / County Assessment Unit Description

\*\*Rappahannock River Basin\*\*

\*\*TMDL Watershed Name:\*\*

\*\*TMDL Group ID:\*\*

\*\*60074\*\*

VAN-E02R\_BRW01A06\*\*

\*\*Barrows Run\*\*

\*\*FAUQUIER CO\*\*

\*\*Segment begins at the headwaters of Barrows Run and continues downstream until the confluence with the Rappahannock River.\*\*

VA Overall AU Category: **5A** 

**Assessment** 

Use

Impairment 4.9

4.93 MILES

TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Escherichia coli

60074 **2006 2018** 

Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 5 samples - 40.0%) were recorded at DEQ's ambient water quality monitoring station (3-BRW000.29) at Spring Drive to assess this stream segment as not supporting of the

recreation use goal for the 2006 water quality assessment.

Sources: Source Unknown

Final 2006 IR Page 805 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Bay Segment RPPTF

TMDL Group ID: 60127

VAN-E20E\_RPP01A02 Rappahannock River SPOTSYLVANIA CO Segment begins at the confluence with Massaponax Creek and continues

STAFFORD CO downstream until the outlet of waterbody VAN-E20E. This segment

represents the upper reach of VAN-E21E\_RPP05A02.

Portion of CBP segment RPPTF.

VA Overall AU Category: 5A

Use Impairment 0.19 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 60127 2006 2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes)

60127 **2006 2010** 

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 806 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Bay Segment RPPTF

TMDL Group ID: 60127

VAN-E20E\_RPP02A02 Rappahannock River SPOTSYLVANIA CO Segment begins at the confluence with Deep Run and continues

STAFFORD CO downstream until the confluence with Massaponax Creek.

VA Overall AU Category: 5A

Portion of CBP segment RPPTF.

Use Impairment 0.23 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 60127 2006 2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Aquatic Plants (Macrophytes) 60127 2006 2010

Submerged Aquatic Vegetation

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 807 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Bay Segment RPPTF

TMDL Group ID: 60127

VAN-E20E\_RPP03A02 Rappahannock River FREDERICKSBURG CITY Segment begins at the fall line at Route One and continues downstream

STAFFORD CO until the confluence with Deep Run.
Portion of CBP segment RPPTF.

VA Overall AU Category: **5A** 

Use Impairment 0.21 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 60127 2006 2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

2006

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

2010

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

60127

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 808 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River Basin	
----------------	-------------	--

TMDL Watershed Name: Bay Segment RPPTF

TMDL Group ID: 60127

VAN-E21E\_MIC01A06 Mill Creek CAROLINE CO Segment includes all tidal waters of Mill Creek.

Portion of CBP segment RPPTF.

VA Overall AU Category: **5A** 

Use Impairment 0.21 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 60127 2006 2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

2010

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 60127

2006

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Industrial Point Source Discharge

Clean Sediments

Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sediment Resuspension (Clean Sedime

Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 809 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Bay Segment RPPTF

TMDL Group ID: 60127

VAN-E21E\_RPP01A02 Rappahannock River CAROLINE CO Segment begins at the confluence with Mill Creek, at rivermile 78.94, and

KING GEORGE CO continues downstream until immediately upstream of Devils Elbow, at

rivermile 70.52.

Portion of CBP segment RPPTF.

VA Overall AU Category: 5A

Use Impairment 4.50 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 60127 2006 2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes)

60127 **2006 2010** 

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 810 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Bay Segment RPPTF

TMDL Group ID:

60127

VAN-E21E\_RPP03A02 Rappahannock River CAROLINE CO Segment begins at the confluence with Mount Creek and continues

KING GEORGE CO downstream until the confluence with Mill Creek.

Portion of CBP segment RPPTF.

VA Overall AU Category: **5A** 

Use Impairment 1.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 60127 2006 2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes)

60127

2006

2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 811 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Bay Segment RPPTF

TMDL Group ID:

60127

VAN-E21E\_RPP04A02 Rappahannock River CAROLINE CO Segment begins at the confluence with Ware Creek and continues

KING GEORGE CO downstream until the confluence with Mount Creek.

Portion of CBP segment RPPTF.

VA Overall AU Category: **5A** 

Use Impairment 1.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 60127 2006 2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 

60127

2006

2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 812 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Bay Segment RPPTF

TMDL Group ID: 60127

VAN-E21E\_RPP05A02 Rappahannock River CAROLINE CO Segment begins at the confluence with Massaponax Creek and continues

STAFFORD CO downstream until the confluence with Ware Creek. The upper reach of this

segment (approx. 0.3 sq mi) extends into waterbody VAN-E20E. Portion of CBP segment RPPTF.

VA Overall AU Category: 5A

Use Impairment 0.57 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 60127 2006 2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes)

60127 **2006 2010** 

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 813 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Bay Segment RPPTF

TMDL Group ID: 60127

VAN-E21E\_RPP20A02 Ware Creek/Rappahannock River CAROLINE CO Segment includes all tidal waters in watershed not included in other

KING GEORGE CO delineated stream segments.
Portion of CBP segment RPPTF.

VA Overall AU Category: **5A** 

Use Impairment 2.37 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 60127 2006 2010

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 

60127 **2006 2010** 

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 814 of 2342

**Assessment** 

Unit ID	Waterbody Name	City / C	County	Assessment Unit Description
Rappahannock Rive	er Basin			
TMDL Watershed Name:			Beautiful Run	
TMDL Group ID:	60083			
VAN-E13R_BFL01A04	Beautiful Run	MADIS	ON CO	Segment begins at the confluence of an unnamed tributary, upstream from Route 620, and continues downstream until the confluence with the Rapidan River.
VA Overall AU Category: <b>5A</b> Use	Impairment 1.08 MILES	TMDL Group ID First Listed on	303(d) TMDL Schedu	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	60083 <b>2006</b>	2018	Sufficient exceedances of the instantaneous E.coli bacteria criterion (4 of 5 samples - 80.0%) were recorded at DEQ's ambient water quality monitoring station (3-BFL000.90) at the Route 620 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources:	Source Unknown		. ,
Recreation	Fecal Coliform	60083 <b>2006</b>	2018	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 7 samples - 42.8%) were recorded at DEQ's ambient water quality monitoring station (3-BFL000.90) at the Route 620 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources:	Source Unknown		
TMDL Watershed Name:			Bells Creek	
TMDL Group ID:	01069			
VAP-E26E_BES01A98	Bells Creek	LANCAS	TER CO	The boundaries are described in VDH shellfish condemnation 021-058B, 4/21/2004.
				Size adjusted in 2006, although area did not change
				CRRMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.05 SQUARE MILE	S TMDL Group ID First Listed on 3	303(d) TMDL Schedu	lle Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	Fecal Coliform	01069 <b>1998</b>	2010	VAP-E26E-15
	Sources:	Source Unknown		VDH shellfish condemnation 021-058B, 4/21/2004

Final 2006 IR Page 815 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Belwood Swamp

TMDL Group ID: 01097

VAP-E26E\_BLD01A98 Belwood Swamp LANCASTER CO Tidal limit to its mouth at the Western Branch Corrotoman River.

Previously called riverine

CRRMH

VA Overall AU Category: **5A** 

Use Impairment 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Fecal Coliform 01097 2002 2014 VAP-E26E-27 (see 2004 fact sheet VAP-E26R-01)

The segment was initially assessed in 1998 as fully supporting but threatened of the Recreation Use based on violations of the fecal coliform standard at monitoring station 3-BLD000.58, located at the Route 3 bridge. During the year 2002 cycle, the segment was downgraded to impaired. During the 2004 cycle, the segment continued to be impaired (see 2004 fact sheet VAP-E26R-01).

However, in the 2006 cycle, it was determined that the station is tidally influenced and had been mistakenly considered riverine. The station remains impaired for fecal coliform. The fact sheet and AU were renamed. The TMDL is due in 2014.

Sources: Source Unknown

TMDL Watershed Name: Black Swamp

TMDL Group ID: 10105

VAP-E23R\_BLA01A06 Black Swamp WESTMORELAND CO Black Swamp from its headwaters downstream to Chandlers Millpond

VA Overall AU Category: 5C

Use Impairment 4.31 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 10105 **2006 2018** VAP-E23R-14

During the 2006 cycle, Black Swamp was assessed as not supporting the Aquatic Life

Use based on a dissolved oxygen violation rate of 6/15 at 3-BLA002.31.

This segment is nested within VAP-E23R-01.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 816 of 2342

Assessment Unit ID	Waterbody Name	City / County		Assessment Unit Description
Rappahannock Rive	er Basin			
TMDL Watershed Name:		Black Wa	alnut Run	
TMDL Group ID:	60095			
VAN-E17R_BWR01A06	Black Walnut Run	ORANGE CO		Segment begins at the Route 621 crossing and continues downstream until the confluence with Mine Run.
VA Overall AU Category: <b>5A</b> Use Recreation	Impairment 6.45 MILES Escherichia coli	TMDL Group ID First Listed on 303(d) T 60095 <b>2006</b>	2018	Impairment Specific Comments and/or Impairment Specific VA Category Sufficient exceedances of the instantaneous E.coli bacteria criterion (5 of 15 samples - 33.3%) were recorded at DEQ's ambient water quality monitoring station (3-BWR004.13) at the Route 602 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources:	Source Unknown		
TMDL Watershed Name:		Blue	Run	
TMDL Group ID:	00319			
VAN-E13R_BLU01A00	Blue Run	ORANGE CO	1	Segment begins at the confluence with Barbour Run, approximately 0.13 rivermile upstream of the Southern Rail Road bridge, and continues downstream until the confluence with the Rapidan River.
VA Overall AU Category: <b>5A</b> Use	Impairment 4.21 MILES	TMDL Group ID First Listed on 303(d) T	MDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	00319 <b>2006</b>		Sufficient exceedances of the instantaneous E.coli bacteria criterion (3 of 6 samples - 50.0%) were recorded at DEQ's ambient water quality monitoring station (3-BLU002.60) at the Route 20 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for a fecal coliform bacteria impairment, beginning in 2002.
		Source Unknown		
Recreation	Fecal Coliform	00319 <b>2002</b>		Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (7 of 20 samples - 35.0%) were recorded at DEQ's ambient water quality monitoring station (3-BLU002.60) at the Route 20 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources:	Source Unknown		
VAN-E13R_BLU02A04	Blue Run	ALBEMARLE CO ORANGE CO		Segment begins at the headwaters of Blue Run and continues downstream until the confluence with Barbour Run.
VA Overall AU Category: <b>5A</b> Use	Impairment 7.40 MILES	TMDL Group ID First Listed on 303(d) T	MDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Fecal Coliform	00319 2006		Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 5 samples - 40.0%) were recorded at DEQ's ambient water quality monitoring station (3-BLU006.44), at the bridge for an unnamed road through Tibbstown, to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources:	Source Unknown		

Final 2006 IR Page 817 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Bookers Mill Stream

TMDL Group ID: 01054

VAP-E24R\_BMS01A98 Bookers Mill Stream RICHMOND CO Bookers Mill Stream in its entirety.

VA Overall AU Category: **5A** 

Use Impairment 6.22 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Fecal Coliform 01054 2002 2014 VAP-E24R-01

Bookers Mill Stream was assessed not supporting of the Recreation Use support goal in 2004 based on a fecal coliform violation rate of 4/19 recorded at the Route 612  $\,$ 

bridge (3-BMS002.00). Monitoring was discontinued in 2001.

Sources: Source Unknown

TMDL Watershed Name: Broad Creek

TMDL Group ID: 01071

VAP-E26E BRD02A00 Broad Creek MIDDLESEX CO The boundaries are defined in VDH shellfish condemnation 038A,

12/30/2004.

RPPMH

VA Overall AU Category: **5A** 

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing Fecal Coliform 01071 1998 2010 VAP-E26E-21

VDH shellfish condemnation 033-038A, 12/30/2004

Sources: Industrial Point Source Discharge

Municipal Point Source Discharges

Source Unknown

Final 2006 IR Page 818 of 2342

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
Rappahannock Riv	ver Basin		
TMDL Watershed Name:		Broad Cree	ek
TMDL Group ID	10083		
VAP-E26E_BRD01A00	Broad Creek	MIDDLESEX CO	The boundaries are defined in VDH shellfish condemnation 038B, 12/30/2004.
			RPPMH
VA Overall AU Category: <b>5A</b> Use		S TMDL Group ID First Listed on 303(d) TMDL Sc	hedule Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Enterococcus	10083 <b>2006 2018</b>	VAP-E26E-20
			Broad Creek was considered fully supporting but threatened of the Recreation Use in 1998 due to BPJ (6 dischargers into embayment), but there were acceptable FC violation rates at station 3-BRD000.62 in both the 2002 and 2004 cycles, so it was dropped in 2004. In the 2006 cycle, the fecal coliform violation rate remained acceptable (0/23), however the enterococci violation rate failed (2/9), therefore the segment is considered impaired of the Recreation Use. The TMDL is due in 2018.
		Industrial Point Source Discharge	
		Municipal Point Source Discharges Source Unknown	
VAP-E26E_BRD02A00	Broad Creek	MIDDLESEX CO	The boundaries are defined in VDH shellfish condemnation 038A, 12/30/2004.
			RPPMH
VA Overall AU Category: <b>5A</b> Use		S TMDL Group ID First Listed on 303(d) TMDL Sc	hedule Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Enterococcus	10083 <b>2006 2018</b>	VAP-E26E-20
			Broad Creek was considered fully supporting but threatened of the Recreation Use in 1998 due to BPJ (6 dischargers into embayment), but there were acceptable FC violation rates at station 3-BRD000.62 in both the 2002 and 2004 cycles, so it was dropped in 2004. In the 2006 cycle, the fecal coliform violation rate remained acceptable (0/23), however the enterococci violation rate failed (2/9), therefore the segment is considered impaired of the Recreation Use. The TMDL is due in 2018.
		Industrial Point Source Discharge	
		Municipal Point Source Discharges	

Final 2006 IR Page 819 of 2342

Source Unknown

Assessment Unit ID	Waterbody Name		City / Count	у	Assessment Unit Description
Rappahannock Rive	er Basin				
TMDL Watershed Name:			Broa	d Creek	
TMDL Group ID:	10083				
VAP-E26E_BRD03A00	Broad Creek		MIDDLESEX C	0	The boundaries are defined in VDH shellfish condemnation 033-038C, 12/30/2004.
					Sq. mileage adjusted in 2006, although area did not change
					RPPMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.03 SQUARE MIL	ES TMDL Group ID Fir	rst Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Enterococcus	10083	2006	2018	VAP-E26E-20
					Broad Creek was considered fully supporting but threatened of the Recreation Use in 1998 due to BPJ (6 dischargers into embayment), but there were acceptable FC violation rates at station 3-BRD000.62 in both the 2002 and 2004 cycles, so it was dropped in 2004. In the 2006 cycle, the fecal coliform violation rate remained acceptable (0/23), however the enterococci violation rate failed (2/9), therefore the segment is considered impaired of the Recreation Use. The TMDL is due in 2018.
	Sources	Industrial Point Source Municipal Point Source Source Unknown	•		
VAP-E26E_BRD04A00	Broad Creek		MIDDLESEX C	0	Described in VDH-DSS condemnation 033-038M1, 12/3/2004
					Size reduced in 2006
					RPPMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.03 SQUARE MIL	ES TMDL Group ID Fir	rst Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Enterococcus	10083	2006	2018	VAP-E26E-20
					Broad Creek was considered fully supporting but threatened of the Recreation Use in 1998 due to BPJ (6 dischargers into embayment), but there were acceptable FC violation rates at station 3-BRD000.62 in both the 2002 and 2004 cycles, so it was dropped in 2004. In the 2006 cycle, the fecal coliform violation rate remained acceptable (0/23), however the enterococci violation rate failed (2/9), therefore the segment is considered impaired of the Recreation Use. The TMDL is due in 2018.
	Sources	Industrial Point Source Municipal Point Source Source Unknown	•		

Final 2006 IR Page 820 of 2342

**Assessment** 

**Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: **Browns Run** TMDL Group ID: 00835 VAN-E08R\_BOS01A02 **Browns Run FAUQUIER CO** Segment begins at the confluence with an unnamed tributary to Browns Run, near the Route 17 bridge, and continues downstream until the confluence with Marsh Run. VA Overall AU Category: 2.39 MILES **Impairment** TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Use Recreation **Fecal Coliform** 00835 2002 2014 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 3 samples - 100%) were recorded at DEQ's ambient water quality monitoring station (3-BOS000.72) at the Route 653 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown TMDI Watershed Name: **Carter Cove** TMDL Group ID: 01078 LANCASTER CO VAP-E26E\_CTR04A02 **Carter Cove** As described in VDH-DSS SFC 020-041C, 12/17/2004 **RPPMH** VA Overall AU Category: Use **Impairment** 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category **Fecal Coliform** 01078 2002 2014 VAP-E26E-30 Shellfishing VDH shellfish condemnation 020-041C, 12/17/2004 Was threatened in 1998 b/c it was part of the seasonal condemnation. Was downgraded during 2002 cycle. Sources: Source Unknown TMDL Watershed Name: **Carter Creek** TMDL Group ID: 01077 LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation VAP-E26E CTR02A00 **Carter Creek** 041B, 12/17/2004. Size adjusted in 2006 **RPPMH** VA Overall AU Category: **Impairment** 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category **Fecal Coliform** 01077 1998 2010 VAP-E26E-19 Shellfishing VDH-DSS condemnation 020-041B, 12/17/2004 Sources: Source Unknown

Final 2006 IR Page 821 of 2342

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
Rappahannock Rive	er Basin		
TMDL Watershed Name:		Carter Creek, Eastern	Branch
TMDL Group ID:	01072		
VAP-E26E_CEB01A00	Eastern Branch Carter Creek	LANCASTER CO	The boundaries are delineated in VDH shellfish condemnation 041A, 12/17/2004.
			Segment was expanded in 2006 cycle and now incorporates CEB02A00 (Bridge Cove), which was previously open.
			RPPMH
VA Overall AU Category: <b>5A</b> Use Recreation	Impairment 0.25 SQUARE MILES TMDL Group ID Fecal Coliform 01072	First Listed on 303(d) TMDL Schedu 1998 2016	lle Impairment Specific Comments and/or Impairment Specific VA Category VAP-E26E-17
			In the 2004 cycle, the segment was also listed as impaired of the Recreation Use goal based on a fecal coliform violation rate of 5/38 at 3-CEB001.92, located at Route 200. Although the violation rate in the 2006 cycle dropped to 0/15, the monitoring ceased in 2002, therefore the previous impairment is carried over. The TMDL is due in 2014.
	Sources: Source Unknown		
TMDL Group ID:	01073		
VAP-E26E_CEB01A00	Eastern Branch Carter Creek	LANCASTER CO	The boundaries are delineated in VDH shellfish condemnation 041A, 12/17/2004.
			Segment was expanded in 2006 cycle and now incorporates CEB02A00 (Bridge Cove), which was previously open.
			RPPMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.25 SQUARE MILES TMDL Group ID	First Listed on 303(d) TMDL Schedu	lle Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	Fecal Coliform 01073	1998 2010	VAP-E26E-17
			VDH shellfish condemnation 020-041A, 12/17/2004
	Sources: Source Unknown		

Final 2006 IR Page 822 of 2342

**Assessment** 

Unit ID	Waterbody Name	City / County		Assessment Unit Description
Rappahannock Rive	er Basin			
TMDL Watershed Name:		Carte	r Run	
TMDL Group ID:	20024			
VAN-E02R_CAE02A04	Carter Run	FAUQUIER CO		Segment begins at the confluence with Horner Run and continues downstream until the confluence with South Run.
VA Overall AU Category: <b>5A</b> Use	Impairment 8.24 MILES	TMDL Group ID First Listed on 303(d) 1	MDL Schedul	e Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	20024 <b>2006</b>	2018	Sufficient exceedances of the instantaneous E.coli bacteria criterion (3 of 9 samples 33.3%) were recorded at DEQ's ambient water quality monitoring station (3-CAE006.32) at the Route 738 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources	s: Source Unknown		
VAN-E02R_CAE03A06	Carter Run	FAUQUIER CO		Segment begins at the confluence with Strothers Branch and continues downstream until the confluence with an unnamed tributary to Carter Run, at rivermile 14.71.
VA Overall AU Category: <b>5A</b> Use	Impairment 1.62 MILES	TMDL Group ID First Listed on 303(d) 1	MDL Schedul	e Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	20024 <b>2006</b>	2018	Sufficient exceedances of the instantaneous E.coli bacteria criterion (3 of 8 samples - 37.5%) were recorded at DEQ's ambient water quality monitoring station (3-CAE015.01), at a private road off of Route 719, to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Source	s: Source Unknown		
TMDL Watershed Name:		Cat Poi	nt Creek	
TMDL Group ID:	10104			
VAP-E23R_CAT01A98	Cat Point Creek	RICHMOND CC		Cat Point Creek from Ruin Branch (river mile 14.1) downstream to Canal Swamp (river mile 10.54.)
VA Overall AU Category: <b>5A</b> Use	Impairment 4.99 MILES	TMDL Group ID First Listed on 303(d) 1	MDL Schedul	e Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	10104 <b>2006</b>	2018	VAP-E23R-13
				During the 2006 cycle, the E. coli violation rate at 5ACAT011.62 was 2/13, therefore the segment is considered impaired of the Recreation Use. Further monitoring is recommended.
	Source	s: Source Unknown		

Final 2006 IR Page 823 of 2342

**Assessment** 

Unit ID	Waterbody Name	City / County	Assessment Unit Description
Rappahannock Riv	er Basin		
TMDL Watershed Name:		Cedar Run	
TMDL Group ID.	00847		
VAN-E16R_CED01A00	Cedar Run	CULPEPER CO	Segment begins at the confluence with Cabin Branch and continues downstream until the confluence with the Rapidan River.
VA Overall AU Category: <b>5A</b> Use	Impairment 2.19 MILES	TMDL Group ID First Listed on 303(d) TMDL Sched	ule Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Fecal Coliform	00847 <b>2004 2016</b>	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 13 samples - 15.4%) were recorded at DEQ's ambient water quality monitoring station (3-CED000.59) at the Route 522 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Source	s: Source Unknown	
VAN-E16R_CED02A04	Cedar Run	CULPEPER CO	Segment begins at the confluence with Buck Run and continues downstream until the confluence with Cabin Branch.
VA Overall AU Category: <b>5A</b> Use	Impairment 3.21 MILES	TMDL Group ID First Listed on 303(d) TMDL Sched	ule Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	00847 <b>2006 2018</b>	Sufficient exceedances of the instantaneous E.coli bacteria criterion (3 of 3 samples - 100%) were recorded at DEQ's special study water quality monitoring station (3-CED003.52) at the Route 652 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Source	s: Source Unknown	, ,
Recreation	Fecal Coliform	00847 <b>2006 2018</b>	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 8 samples - 37.5%) were recorded at DEQ's special study water quality monitoring station (3-CED003.52) at the Route 652 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Source	s: Source Unknown	,
TMDL Watershed Name:		Church Swam <sub>l</sub>	
TMDL Group ID.	10100		
VAP-E23R_CRC01A06	Church Swamp	ESSEX CO	Headwaters to mouth at tidal Hoskins Creek
VA Overall AU Category: <b>5C</b> Use	Impairment 3.64 MILES	TMDL Group ID First Listed on 303(d) TMDL Sched	ule Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	рН	10100 <b>2006 2018</b>	VAP-E23R-09
	Source	s: Natural Conditions - Water Quality Standards Use Attair	Church Swamp was assessed as not supporting of the Aquatic Life Use based on a pH violation rate of 2/2 at -CRC001.38.
	Source	5. Matural Conditions - Water Quality Standards USE Attail	idulity Alidiyada Needled

Final 2006 IR Page 824 of 2342

Sources: Source Unknown

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin Claiborne Run TMDL Watershed Name: TMDL Group ID: 00323 VAN-E20R\_CLB01A00 Claiborne Run STAFFORD CO Segment begins at the confluence with an unnamed tributary to Claiborne Run, approximately 0.5 rivermile upstream of the Route 1 crossing, and continues downstream until the confluence with the Rappahannock River. VA Overall AU Category: **Impairment** 4.89 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Recreation Escherichia coli 00323 2006 2010 Sufficient exceedances of the instantaneous E.coli bacteria criterion (5 of 8 samples -62.5%) were recorded at DEQ's ambient water quality monitoring station (3-CLB000.50) at the Route 3 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for a fecal coliform impairment, beginning in 1998. Sources: Source Unknown Recreation **Fecal Coliform** 00323 1998 2010 Although the data obtained during the 2006 assessment window shows exceedances of the instantaneous fecal coliform bacteria criterion (1 of 6 samples - 16.7%), it is categorized as having insufficient information with which to determine use support. No additional fecal coliform data has been collected from the DEQ's ambient water quality monitoring station (3-CLB000.50) at Route 3 since the previous assessment window. The segment shall remain categorized as impaired for fecal coliform bacteria, as it has been since 1998. Sources: Source Unknown TMDL Group ID: 00848 VAN-E20R\_CLB01A00 Claiborne Run STAFFORD CO Segment begins at the confluence with an unnamed tributary to Claiborne Run, approximately 0.5 rivermile upstream of the Route 1 crossing, and continues downstream until the confluence with the Rappahannock River. VA Overall AU Category: 5A Impairment 4.89 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category pН 00848 2002 2014 Sufficient exceedances of the instantaneous pH criterion (3 of 12 samples - 25.0%) Aquatic Life were recorded at DEQ's ambient water quality monitoring station (3-CLB000.50) at the Route 3 bridge to assess this stream segment as not supporting of the aquatic life use goal for the 2006 water quality assessment.

Final 2006 IR Page 825 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID: 01074

VAP-E26E\_BES01A98 Bells Creek LANCASTER CO The boundaries are described in VDH shellfish condemnation 021-058B,

4/21/2004.

Size adjusted in 2006, although area did not change

**CRRMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.05 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01074 **2006 2010** VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006

cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life

The new Chesapeake Bay water quality standards were implemented during the 2006

cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 826 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID: 01074

VAP-E26E\_BLD01A98 Belwood Swamp LANCASTER CO Tidal limit to its mouth at the Western Branch Corrotoman River.

Previously called riverine

**CRRMH** 

VA Overall AU Category: 54

Use Impairment 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01074 **2006 2010** VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 827 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappak	hannock	x River	Basin
--------	---------	---------	-------

VA Overall AU Category:

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID: 01074

5A

VAP-E26E\_CRR01A00 Corrotoman River LANCASTER CO The mainstem of the Corrotoman River downstream of the confluence of the

Eastern and Western Branches Corrotoman River.

CRRMH

Use Impairment 4.24 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01074 2002 2010 VAP-E26E-25

The Corrotoman River was included in EPA's 1998 Overlist. The segment was previously called impaired solely on EPA's overlist (nutrients/eutrophication biological

indicators).

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria. The TMDL is due in 2010.

During the 2006 cycle, monitoring was conducted at Coastal 2000 station 3-CRR000.58. The weight of evidence approach was utilized and the station was considered impaired because of sparse benthos. There was no toxicity or chemical contamination observed, therefore the approach considered the cause to be water

quality.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

pen-Water Aquatic Oxygen, Dissolved 01074 2002 2010 VAP-E26E-25

Open-Water Aquatic Oxygen, Dissolved 01074 2002 2010 Life

The Corrotoman River was included in EPA's 1998 Overlist. The segment was previously called impaired solely on EPA's overlist (nutrients/eutrophication biological indicates).

indicators).

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria. The TMDL is due in 2010.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 828 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID: 01074

VAP-E26E\_CTM01A00 Eastern Branch Corrotoman River LANCASTER CO The boundaries are described in VDH shellfish condemnation 021-058C,

4/21/2004.

Size expanded in 2006

CRRMH

VA Overall AU Category: 5A

Use Impairment 0.61 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01074 **2006 2010** VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 829 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID: 01074

VAP-E26E\_CTO01A02 Western Branch Corrotoman River LANCASTER CO The boundaries are described in VDH shellfish condemnation 021-132A,

3/27/2002, not otherwise segmented

**CRRMH** 

VA Overall AU Category: 5A

Use Impairment 0.50 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01074 **2006 2010** VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 830 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River Basin
--------------	-------------

**Corrotoman River Mesohaline** TMDL Watershed Name:

TMDL Group ID:

01074

VAP-E26E\_CTO02A06 **Western Branch Corrotoman River** LANCASTER CO Mainstem downstream of SFC 021-132A

**CRRMH** 

VA Overall AU Category:

Use

Impairment

1.37 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

> The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010

Life

VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 831 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID: 01074

VAP-E26E\_DAS01A02 Davis Creek LANCASTER CO As described in VDH-DSS SFC 021-132C. 3/27/2002.

Size adjusted in 2006

**CRRMH** 

VA Overall AU Category: 54

Use Impairment 0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01074 **2006 2010** VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 832 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID: 01074

VAP-E26E\_EWE01A00 Ewells Prong LANCASTER CO The boundaries are described in VDH shellfish condemnation 187C,

3/27/2002.

**CRRMH** 

VA Overall AU Category: 5A

Use Impairment 0.04 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01074 **2006 2010** VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

riteria

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 833 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

**Corrotoman River Mesohaline** TMDL Watershed Name:

TMDL Group ID: 01074

VAP-E26E\_HLS01A00 **Hills Creek** LANCASTER CO The boundaries are described in VDH shellfish condemnation 021-058A,

4/21/2004.

Size expanded in 2006 cycle

**CRRMH** 

VA Overall AU Category:

**Impairment** Use 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

01074 Aquatic Life Oxygen, Dissolved 2006 2010 VAP-E26E-25

> The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life

The new Chesapeake Bay water quality standards were implemented during the 2006

cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 834 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID: 01074

VAP-E26E\_LIT01A06 Little Branch Corrotoman River

CRRMH

VA Overall AU Category: 5A

Use Impairment 0.11 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01074 **2006 2010** VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life Cxyger

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 835 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

**Corrotoman River Mesohaline** TMDL Watershed Name:

TMDL Group ID:

01074

VAP-E26E\_MIP01A00 Millenbeck Prong LANCASTER CO The boundaries are described in VDH shellfish condemnation 187B,

3/27/2002.

Size adjusted in 2006, although area did not change

**CRRMH** 

VA Overall AU Category:

**Impairment** Use 0.04 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

01074 Aquatic Life Oxygen, Dissolved 2006 2010 VAP-E26E-25

> The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life

The new Chesapeake Bay water quality standards were implemented during the 2006

cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 836 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Corrotoman River Mesohaline

01074

TMDL Group ID:

VAP-E26E\_MYE01A00 Myer Creek LANCASTER CO The boundaries are described in VDH shellfish condemnation 198B,

11/6/2003.

Size adjusted in 2006

**CRRMH** 

VA Overall AU Category: 5/

Use Impairment 0.08 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01074 **2006 2010** VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

l ife

Life

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 837 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID:

01074

VAP-E26E\_MYE01B02 Myer Creek, UT LANCASTER CO As described in VDH-DSS SFC 21-198C, 11/6/2003.

Size adjusted in 2006, although area did not change

**CRRMH** 

VA Overall AU Category: 54

Use Impairment 0.04 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25, VAP-E26E-31

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life Oxygen, Disso

Sources: Agriculture
Atmospheric Deposition - Nitrogen
Industrial Point Source Discharge
Internal Nutrient Recycling

Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 838 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River B	asin
----------------------	------

**Corrotoman River Mesohaline** TMDL Watershed Name:

TMDL Group ID: 01074

VAP-E26E\_MYE01C04 **Myer Creek** LANCASTER CO Described in VDH Condemnation 21-198A, 11/6/2003

**CRRMH** 

VA Overall AU Category:

**Impairment** 0.05 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

> The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved

Life

01074 2006 2010 VAP-E26E-25

> The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 839 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River	Basin
--------------	-------	-------

**Corrotoman River Mesohaline** TMDL Watershed Name:

TMDL Group ID:

01074

VAP-E26E\_MYE02C06 **Myer Creek** LANCASTER CO Described in VDH-DSS SFC 021-198M, 11/6/2003

**CRRMH** 

VA Overall AU Category:

Use

**Impairment** 

0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

> The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved

Life

01074 2006 2010 VAP-E26E-25

> The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 840 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappai	hannock	k River	Basin
--------	---------	---------	-------

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID: 01074

VAP-E26E\_SEN01A00 Senior Creek LANCASTER CO The boundaries are described in VDH shellfish condemnation 021-132B,

3/27/2002.

Size adjusted in 2006 cycle, although area did not change.

**CRRMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01074 **2006 2010** VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

en-water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006

cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 841 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River Ba	sin
-----------------------	-----

**Corrotoman River Mesohaline** TMDL Watershed Name:

TMDL Group ID:

01074

VAP-E26E\_TAY01A00 **Taylor Creek** LANCASTER CO The boundaries are described in VDH shellfish condemnation 021-205.

3/27/2002.

Size reduced in 2004 cycle.

**CRRMH** 

VA Overall AU Category:

**Impairment** 0.09 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category

01074 Aquatic Life Oxygen, Dissolved 2006 2010 VAP-E26E-25

> The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

Life

The new Chesapeake Bay water quality standards were implemented during the 2006

cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 842 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock I	River I	Basin
----------------	---------	-------

TMDL Watershed Name: **Corrotoman River Mesohaline** 

TMDL Group ID:

01074

VAP-E26E\_TON01A00 **Town Creek** LANCASTER CO The boundaries are described in VDH shellfish condemnation 187A,

3/27/2002.

Size adjusted in 2006, although area did not change

**CRRMH** 

VA Overall AU Category:

Aquatic Life

**Impairment** Use

0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

01074

2006

2010

VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006

Impairment Specific Comments and/or Impairment Specific VA Category

cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic

Life

Oxygen, Dissolved

Oxygen, Dissolved

01074

2006

2010

VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006

cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 843 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

**Corrotoman River Mesohaline** TMDL Watershed Name:

TMDL Group ID:

01074

VAP-E26E\_WHR01A00 **Whitehouse Creek** LANCASTER CO The boundaries are described in VDH shellfish condemnation 187D.

3/27/2002

Size adjusted in 2006, although area did not change

**CRRMH** 

VA Overall AU Category:

Impairment Use

Oxygen, Dissolved

0.05 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25

> The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic

Life

01074

2006

2010

VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 844 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Corrotoman River Mesohaline

TMDL Group ID:

01074

VAP-E26E\_ZZZ02A06 Unsegmented estuaries in E26 LANCASTER CO Unsegmented portion of watershed

CRRMH

VA Overall AU Category: 5A

Use Impairment 1.74 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01074 **2006 2010** VAP-E26E-25

The new Chesapeake Bay water quality standards were implemented during the 2006 cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01074 2006 2010 VAP-E26E-25 Life

The new Chesapeake Bay water quality standards were implemented during the 2006

cycle. The mesohaline Corrotoman failed the open water summer dissolved oxygen

criteria

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 845 of 2342

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description	
Rappahannock Rive	er Basin			
TMDL Watershed Name:		Corrotoman River, Easte	rn Branch	
TMDL Group ID:	01075			
VAP-E26E_CTM01A00	Eastern Branch Corrotoman River	LANCASTER CO	The boundaries are described in VDH shellfish condemnation 021-058C, 4/21/2004.	
			Size expanded in 2006	
			CRRMH	
VA Overall AU Category: <b>5A</b> Use Shellfishing	Impairment 0.61 SQUARE MILES TMDL Group II  Fecal Coliform 01075	D First Listed on 303(d) TMDL Schedu 1998 2010	ule Impairment Specific Comments and/or Impairment Specific VA Category VAP-E26E-16	
			VDH shellfish condemnation 021-058C, 4/21/2004	
			Size expanded in 2006 cycle	
	Sources: Source Unknown			
TMDL Watershed Name:	TMDL Watershed Name: Corrotoman River, Western Branch			
TMDL Group ID:	01076			
VAP-E26E_BLD01A98	Belwood Swamp	LANCASTER CO	Tidal limit to its mouth at the Western Branch Corrotoman River.	
			Previously called riverine	
			CRRMH	
VA Overall AU Category: <b>5A</b> Use Shellfishing	Impairment 0.01 SQUARE MILES TMDL Group II Fecal Coliform 01076	D First Listed on 303(d) TMDL Schedu 2002 2010	ule Impairment Specific Comments and/or Impairment Specific VA Category VAP-E26E-09	
			Portion of VDH shellfish condemnation 021-132A, 3/27/2002	
Sources: Source Unknown				
VAP-E26E_CTO01A02	Western Branch Corrotoman River	LANCASTER CO	The boundaries are described in VDH shellfish condemnation 021-132A, 3/27/2002, not otherwise segmented	
			CRRMH	
VA Overall AU Category: <b>5A</b> Use Shellfishing	Impairment 0.50 SQUARE MILES TMDL Group II  Fecal Coliform 01076	D First Listed on 303(d) TMDL Schedu 1998 2010	ule Impairment Specific Comments and/or Impairment Specific VA Category VAP-E26E-09	
	Sources: Source Unknown		VDH shellfish condemnation 021-132A, 3/27/2002	

Final 2006 IR Page 846 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin Corrotoman River, Western Branch TMDL Watershed Name: TMDL Group ID: 01076 VAP-E26E\_LIT01A06 Little Branch LANCASTER CO Tidal limit to mouth at Western Branch Corrotoman River **CRRMH** VA Overall AU Category: **Impairment** 0.11 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01076 1998 2010 VAP-E26E-09 Portion of VDH shellfish condemnation 021-132A, 3/27/2002 Sources: Source Unknown TMDL Watershed Name: Craig Run TMDL Group ID: 00836 **FAUQUIER CO** Segment begins at the headwaters of Craig Run and continues downstream VAN-E08R\_CRA01A02 Craig Run until the confluence with Marsh Run. VA Overall AU Category: **Impairment** 3.61 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 00836 Recreation **Fecal Coliform** 2004 2016 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 3 samples - 100%) were recorded at DEQ's ambient water quality monitoring station (3-CRA000.82) at the Route 656 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown **Davis Creek** TMDL Watershed Name: TMDL Group ID: 01079 VAP-E26E\_DAS01A02 **Davis Creek** LANCASTER CO As described in VDH-DSS SFC 021-132C. 3/27/2002. Size adjusted in 2006 **CRRMH** VA Overall AU Category: **Impairment** Use 0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01079 2002 2014 VAP-E26E-35 VDH-DSS Shellfish Condemnation 021-132C, 3/27/2002 Sources: Source Unknown

Final 2006 IR Page 847 of 2342

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
Rappahannock Rive	er Basin		
TMDL Watershed Name:		Deep Creek	
TMDL Group ID:	01055		
VAP-E25E_DEE01A04	Deep Creek	LANCASTER CO	Described in VDH shellfish condemnation 023-121B, 9/23/2004.
			In 2002, Deep Creek was split into 3 segments. In 2004, the condemnation was expanded and the segments were joined. Size adjusted in 2006.
			RPPMH
VA Overall AU Category: <b>5A</b> Use Shellfishing	Impairment 0.22 SQUARE MIL Fecal Coliform	LES TMDL Group ID First Listed on 303(d) TMDL Schedul 01055 1998 2010	e Impairment Specific Comments and/or Impairment Specific VA Category VAP-E25E-10
			VDH condemnation 023-121B, 9/23/2004
	Sources	: Source Unknown	
TMDL Watershed Name:		Deep Run	
TMDL Group ID:	20023		
VAN-E10R_DPR02A02	Deep Run	FAUQUIER CO	Segment begins at the confluence with Pine Branch and continues downstream until the confluence with Green Branch.
VA Overall AU Category: <b>5A</b> Use	Impairment 2.79 MILES	TMDL Group ID First Listed on 303(d) TMDL Schedul	e Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Fecal Coliform	20023 <b>2006 2018</b>	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 7 - 28.6%) were recorded at DEQ's ambient water quality monitoring station (3-DPR004.93) at the Route 752 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources	: Source Unknown	
TMDL Watershed Name:		Elmwood Creek	
TMDL Group ID:	10112		
VAP-E22R_ELM01A06	Elmwood Creek	ESSEX CO	Headwaters to tidal limit
VA Overall AU Category: 5C Use Aquatic Life	Impairment 4.87 MILES pH	TMDL Group ID First Listed on 303(d) TMDL Schedul 10112 2006 2018	e Impairment Specific Comments and/or Impairment Specific VA Category VAP-E22R-04
	Sources	: Natural Conditions - Water Quality Standards Use Attaina	Elmwood Creek was assessed as not supporting the Aquatic Life Use based on a pH violation rate of 2/8 at 3-ELM002.23.  bility Analyses Needed
	304,000	adding statute of 500 / mains	

Final 2006 IR Page 848 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Ewells Prong

TMDL Group ID: 01080

VAP-E26E\_EWE01A00 Ewells Prong LANCASTER CO The boundaries are described in VDH shellfish condemnation 187C,

3/27/2002.

**CRRMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.04 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing **Fecal Coliform** 01080 **1998 2010** VAP-E26E-06

VDH shellfish condemnation 187C, 3/27/2002

Sources: Source Unknown

TMDL Watershed Name: Farmers Hall Creek

TMDL Group ID: 01037

VAP-E22R FAR01A04 Farmers Hall Creek ESSEX CO Headwaters to mouth

VA Overall AU Category: 5A

Use Impairment 4.38 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation **Fecal Coliform** 01037 **2004 2016** VAP-E22R-02

Farmers Hall Creek was assessed as not supporting of the Recreation Use support goal based on a fecal coliform violation rate of 3/13 at the Route 631 bridge (3-

FAR002.88).

Sources: Source Unknown

Final 2006 IR Page 849 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: Farnham Creek TMDL Group ID: 01032 VAP-E25E\_FAM01A98 **Farnham Creek** RICHMOND CO The segment boundaries are delineated in VDH shellfish condemnation 070, 10/17/2000 Sq. mileage adjusted in 2006 although area did not change **RPPMH** VA Overall AU Category: **Impairment** Use 0.41 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 01032 Aquatic Life Chloride 2004 2016 VAP-E25E-05 In the 2004 cycle, impairments of the Aquatic Life and Wildlife Uses were added due to chloride violations at 3-FAM002.62. The chloride TMDL is due in 2016. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Wildlife Chloride 01032 2004 2016 VAP-E25E-05 In the 2004 cycle, impairments of the Aquatic Life and Wildlife Uses were added due to chloride violations at 3-FAM002.62. The chloride TMDL is due in 2016. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed TMDL Group ID: 01056 VAP-E25E FAM01A98 **Farnham Creek** RICHMOND CO The segment boundaries are delineated in VDH shellfish condemnation 070. 10/17/2000 Sq. mileage adjusted in 2006 although area did not change **RPPMH** VA Overall AU Category: **Impairment** 0.41 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category **Fecal Coliform** 01056 VAP-E25E-05 Recreation 1998 2014 In 2002, the segment was assessed as not supporting the Recreation Use due to fecal coliform violations at 3-FAM002.62. During the 2006 cycle, the violation rate was 3/18. The TMDL is due in 2014.

Final 2006 IR Page 850 of 2342

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
Rappahannock Rive	er Basin		
TMDL Watershed Name:		Farnham Creek	
TMDL Group ID:	01057		
VAP-E25E_FAM01A98	Farnham Creek	RICHMOND CO	The segment boundaries are delineated in VDH shellfish condemnation 070, 10/17/2000
			Sq. mileage adjusted in 2006 although area did not change
			RPPMH
VA Overall AU Category: <b>5A</b> Use Shellfishing		Group ID First Listed on 303(d) TMDL Schedul 201057 1998 2010	le Impairment Specific Comments and/or Impairment Specific VA Category VAP-E25E-05
			VDH condemnation 024-070, 10/17/2000
	Sources: Source U	-	
TMDL Watershed Name:		Finks Run	
TMDL Group ID:	60089		
VAN-E14R_FIK01A06	Finks Run	MADISON CO	Segment begins at the headwaters of Finks Run and continues downstream until the confluence with the Robinson River.
VA Overall AU Category: <b>5A</b> Use	Impairment 3.02 MILES TMDL	Group ID First Listed on 303(d) TMDL Schedul	le Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	•	30089 <b>2006 2018</b>	Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 5 samples - 40.0%) were recorded at DEQ's ambient water quality monitoring station (3-FIK001.08) at the Route 650 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources: Source L	Jnknown	
TMDL Watershed Name:		Greenvale Creek	
TMDL Group ID:	01058		
VAP-E25E_GEE01A98	Greenvale Creek	LANCASTER CO	The segment boundaries are delineated in VDH shellfish condemnation 094A, 2/5/2003.
			RPPMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.08 SQUARE MILES TMDL	Group ID First Listed on 303(d) TMDL Schedul	le Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	Fecal Coliform	01058 <b>1998 2010</b>	VAP-E25E-15
	Sources: Source U	Inknown	VDH-DSS condemnation 094A, 2/5/2003
	Sources. Source C	JIRIOWII	

Final 2006 IR Page 851 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Ba	asin
-----------------------	------

TMDL Watershed Name: Harry George Creek

TMDL Group ID: 10080

VAP-E25E\_HRY01A06 Harry George Creek MIDDLESEX CO Designated in VDH SFC 202B, 9/3/2003

RPPMH

VA Overall AU Category: **5A** 

Use Impairment 0.09 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing **Fecal Coliform** 10080 **2006 2018** VAP-E25E-20

VDH Shellfish Condemnation 202B, 9/3/2003

Sources: Source Unknown

TMDL Watershed Name: Hazel River

TMDL Group ID: 60076

VAN-E07R\_HAZ01A04 Hazel River CULPEPER CO Segment begins at the confluence with Indian Run and continues

downstream until the confluence with Muddy Run.

VA Overall AU Category: 5A

Use Impairment 3.32 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Escherichia coli 60076 2006 2018 Sufficient exceedances of the instantaneous E.coli bacteria criterion (5 of 10

samples - 50.0%) were recorded at DEQ's ambient water quality monitoring station (3-HAZ005.98) at the Route 625 bridge to assess this stream segment as not supporting

of the recreation use goal for the 2006 water quality assessment.

Sources: Source Unknown

Recreation Fecal Coliform 60076 2006 2018 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (5 of 14 samples - 35.7%) were recorded at DEQ's ambient water quality monitoring station (3-

HAZ005.98) at the Route 625 bridge to assess this stream segment as not supporting

of the recreation use goal for the 2006 water quality assessment.

Sources: Source Unknown

Final 2006 IR Page 852 of 2342

Sources: Source Unknown

Sources: Source Unknown

60079

Escherichia coli

**Fecal Coliform** 

Recreation

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin TMDL Watershed Name: Hazel River TMDL Group ID: 60079 VAN-E04R\_HAZ01A00 **Hazel River CULPEPER CO** Segment begins at the confluence with Blackwater Creek and continues RAPPAHANNOCK CO downstream until the confluence with an unnamed tributary to the Hazel River, at rivermile 16.03. VA Overall AU Category: **Impairment** 5.58 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Recreation Escherichia coli 60079 2006 2010 Sufficient exceedances of the instantaneous E.coli bacteria criterion (3 of 9 samples -33.3%) were recorded at DEQ's ambient water quality monitoring station (3-HAZ018.29) at the Route 729 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed, beginning in 2002, for a fecal coliform bacteria impairment. Sources: Source Unknown Recreation **Fecal Coliform** 60079 2002 2010 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 20 samples - 15.0%) were recorded at DEQ's ambient water quality monitoring station (3-HAZ018.29) at the Route 729 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed, beginning in 2002, for a fecal coliform bacteria impairment. Sources: Source Unknown **CULPEPER CO** VAN-E04R HAZ01B06 **Hazel River** Segment begins at the confluence with Devils Run and continues downstream until the confluence with Blackwater Creek. VA Overall AU Category: 5A Use **Impairment** 3.54 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Recreation 60079 2006 2018 Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 6 samples -

> 33.3%) were recorded at DEQ's ambient water quality monitoring station (3-HAZ026.16) at the Route 522 bridge to assess this stream segment as not supporting

> Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 6 samples - 33.3%) were recorded at DEQ's ambient water quality monitoring station (3-HAZ026.16) at the Route 522 bridge to assess this stream segment as not supporting

of the recreation use goal for the 2006 water quality assessment.

of the recreation use goal for the 2006 water quality assessment.

Final 2006 IR Page 853 of 2342

2006

2018

Sources: Source Unknown

**Assessment** 

**Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin Hazel River TMDL Watershed Name: TMDL Group ID: 60079 VAN-E04R\_HAZ01C06 **Hazel River CULPEPER CO** Segment begins at the confluence with the Hughes River and continues downstream until the confluence with Devils Run. VA Overall AU Category: **Impairment** Use **6.77 MILES** TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Recreation Escherichia coli 60079 2006 2018 Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 6 samples -33.3%) were recorded, upstream, at DEQ's ambient water quality monitoring station (3-HAZ026.16) at the Route 522 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown Recreation **Fecal Coliform** 60079 2006 2018 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 6 samples - 33.3%) were recorded, upstream, at DEQ's ambient water quality monitoring station (3-HAZ026.16) at the Route 522 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown VAN-E04R HAZ02A02 **Hazel River** RAPPAHANNOCK CO Segment begins at the Route 707 bridge and continues downstream until the confluence with the Hughes River. VA Overall AU Category: **Impairment** 0.78 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 60079 2006 2018 Recreation **Fecal Coliform** Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 14 samples - 21.4%) were recorded at DEQ's ambient water quality monitoring station (3-HAZ032.54) at the Route 644 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.

Final 2006 IR Page 854 of 2342

**Assessment** 

**Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: Hazel Run TMDL Group ID: 00849 VAN-E20R\_HAL01A00 **Hazel Run** FREDERICKSBURG CITY Segment begins at the Route 95 crossing and continues downstream until SPOTSYLVANIA CO the confluence with the Rappahannock River. VA Overall AU Category: **Impairment** 4.46 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Recreation Escherichia coli 00849 2006 2016 Sufficient exceedances of the instantaneous E.coli bacteria criterion (3 of 8 samples -37.5%) were recorded at DEQ's ambient water quality monitoring station (3-HAL001.44) at the Route 1 Business bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for a fecal coliform impairment, beginning in 2004. Sources: Source Unknown Recreation **Fecal Coliform** 00849 2004 2016 Although the data obtained during the 2006 assessment window shows exceedances of the instantaneous fecal coliform bacteria criterion (1 of 7 samples - 14.3%), it is categorized as having insufficient information with which to determine use support. No additional fecal coliform data has been collected from the DEQ's ambient water quality monitoring station (3-HAL001.44) at Route 1 Business since the previous assessment window. The segment shall remain categorized as impaired for fecal coliform bacteria, as it has been since 2004. Sources: Source Unknown TMDL Watershed Name: **Hills Creek** TMDL Group ID: 01081 LANCASTER CO The boundaries are described in VDH shellfish condemnation 021-058A. VAP-E26E HLS01A00 Hills Creek 4/21/2004. Size expanded in 2006 cycle **CRRMH** VA Overall AU Category: **Impairment** 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 1998 2010 01081 VAP-E26E-14 VDH shellfish condemnation 021-058A, 4/21/2004 Sources: Source Unknown

Final 2006 IR Page 855 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Hoskins Creek

TMDL Group ID: 00253

VAP-E23E\_HOK01A98 Hoskins Creek From the Town of Tappahannock STP downstream to the

mouth at the Rappahannock River.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Enterococcus 00253 2006 2010 VAP-E23E-03

This segment was initially included on the 1994 303(d) list based on excessive fecal coliform standard violations recorded at the Rt. 360 bridge (3-HOK000.74). For the 2004 cycle, the segment was assessed not supporting of the Recreation use support goal based on a fecal coliform standard violation rate of 9/49 recorded at 3-HOK000.74. The upstream limit was extended to the Town of Tappahannock STP in the 1998 cycle in recognition that the STP may be a contributing source, although this has not been verified. During the 2006 cycle, the segment remained impaired and enterococci was added as an impairing cause with a violation rate of 9/12 at 3-HOK000.74.

Sources: Municipal Point Source Discharges

Source Unknown

Recreation Fecal Coliform 00253 1996 2010 VAP-E23E-03

This segment was initially included on the 1994 303(d) list based on excessive fecal coliform standard violations recorded at the Rt. 360 bridge (3-HOK000.74). For the 2004 cycle, the segment was assessed not supporting of the Recreation use support goal based on a fecal coliform standard violation rate of 9/49 recorded at 3-HOK000.74. The upstream limit was extended to the Town of Tappahannock STP in the 1998 cycle in recognition that the STP may be a contributing source, although this has not been verified. During the 2006 cycle, the segment remained impaired and enterococci was added as an impairing cause with a violation rate of 9/12 at 3-

HOK000.74.

Sources: Municipal Point Source Discharges

Source Unknown

Final 2006 IR Page 856 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Hoskins Creek

TMDL Group ID: 00254

VAP-E23E\_HOK01A98 Hoskins Creek From the Town of Tappahannock STP downstream to the

mouth at the Rappahannock River.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Chloride** 00254 **2004 2016** VAP-E23E-03

In the 2004 cycle, the segment was assessed as not supporting the Aquatic Life and

Wildlife uses based on chloride violations at 3-HOK000.74. The TMDL for chloride is

due in 2016.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Wildlife Chloride 00254 2004 2016 VAP-E23E-03

In the 2004 cycle, the segment was assessed as not supporting the Aquatic Life and

Wildlife uses based on chloride violations at 3-HOK000.74. The TMDL for chloride is

due in 201

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

TMDL Group ID:

01043

VAP-E23R HOK01A04 Hoskins Creek ESSEX CO Headwaters to the tidal limit

VA Overall AU Category: 5C

Use Impairment 12.96 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life pH 01043 2004 2016 VAP-E23R-04

Assessed not supporting of the Aquatic Life use support goal based on pH standard

violation rates of 8/13 recorded at monitoring station 3-HOK011.45, located at the

Route 717 bridge and of 11/18 at 3-HOK007.25.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 857 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Hoskins Creek

TMDL Group ID: 10073

VAP-E23E\_HOK01A98 Hoskins Creek From the Town of Tappahannock STP downstream to the

mouth at the Rappahannock River.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life pH 10073 2006 2018 VAP-E23E-03, VAP-E22E-01

During the 2006 cycle, pH was added as an impairment because of a violation rate of

6/19 at 3-HOK003.61. Natural conditions are suspected.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

TMDL Watershed Name: Hughes River

TMDL Group ID: 00832

VAN-E03R\_HUE01A00 Hughes River CULPEPER CO Segment begins at the confluence with Kilbys Creek and continues

RAPPAHANNOCK CO downstream until the confluence with the Hazel River.

VA Overall AU Category: **5A** 

Use Impairment 3.68 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Escherichia coli 00832 2006 Sufficient exceedances of the instantaneous E.coli bacteria criterion (4 of 11

samples - 36.4%) were recorded at DEQ's ambient water quality monitoring station (3-HUE000.20) at the Route 644 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was

initially listed for fecal coliform bacteria impairment in 2004.

Sources: Source Unknown

Recreation Fecal Coliform 00832 2004 2016 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 19

samples - 15.8%) were recorded at DEQ's ambient water quality monitoring station (3-HUE000.20) at the Route 644 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was

initially listed for fecal coliform bacteria impairment in 2004.

Sources: Source Unknown

Final 2006 IR Page 858 of 2342

Assessment Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Indian Run

TMDL Group ID: 60080

VAN-E07R\_IND01A04 Indian Run CULPEPER CO Segment begins at the confluence with an unnamed tributary to Indian Run,

upstream from Route 626, and continues downstream until the confluence

with the Hazel River.

VA Overall AU Category: **5A** 

Use Impairment 3.84 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Fecal Coliform 60080 2006 2018 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 7 samples - 28.6%) were recorded at DEQ's ambient water quality monitoring station (3-

IND001.14) at the Route 624 bridge to assess this stream segment as not supporting

of the recreation use goal for the 2006 water quality assessment.

Sources: Source Unknown

TMDL Watershed Name: Lagrange Creek

TMDL Group ID: 00196

VAP-E25E\_LGG01A98 Lagrange Creek MIDDLESEX CO As described in VDH SFC 127, 6/11/1996.

RPPMH

VA Overall AU Category: 5D

Use Impairment 0.60 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing Fecal Coliform 00196 1998 2005 Category 4A

VAP-E25E-01

The segment was assessed in 1998 as not supporting the Shellfish Consumption Use based on VDH-DSS Condemnation 127, 6/11/1996. The TMDL for this original portion was completed and approved by EPA on 11/15/2005. The segment should be classified as Cat. 4A, however at the time of assessment there was no EPA TMDLID available.

Sources: Non-Point Source

TMDL Group ID: 01068

VAP-E25R LGG01A98 Lagrange Creek MIDDLESEX CO Lagrange Creek from its headwaters to the limit of tidal influence.

VA Overall AU Category: 5A

Use Impairment 2.72 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Fecal Coliform 01068 2004 2016 VAP-E25R-02

Lagrange Creek was assessed in 2004 as not supporting of the Recreation Use support goal based on a fecal coliform violation rate of 3/20 recorded at the Route 610 bridge (3-LGG004.54). There has been no additional monitoring since 2001.

Sources: Source Unknown

Final 2006 IR Page 859 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Lagrange Creek

TMDL Group ID: 10081

VAP-E25E\_LGG02A06 Lagrange Creek MIDDLESEX CO As described in VDH SFC 127, 2/25/2004, not otherwise segmented.

RPPMH

VA Overall AU Category: **5A** 

Use Impairment 0.60 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing Fecal Coliform 10081 1998 2018 VAP-E25E-21, VAP-E22E-01

The upstream portion of Lagrange Creek was assessed in 1998 as not supporting the Shellfish Consumption Use based on VDH-DSS Condemnation 127, 6/11/1996. The TMDL for this original portion was completed and approved by EPA on 11/15/2005. During the 2006 cycle, however, the condemnation was extended downstream. The TMDL for this seament is due in 2018.

Sources: Non-Point Source

TMDL Watershed Name: Lancaster Creek

TMDL Group ID: 01033

VAP-E25E LAN01A98 Lancaster Creek LANCASTER CO The segment boundaries are delineated in VDH SFC 120B, 9/23/2004.

RICHMOND CO

Size reduced in 2006 cycle.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.46 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Chloride 01033 2004 2016 VAP-E25E-16

Lancaster and Morattico Creeks were assessed not supporting of the Aquatic Life and

Wildlife Uses based on chloride violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Wildlife Chloride 01033 2004 2016 VAP-E25E-16

Lancaster and Morattico Creeks were assessed not supporting of the Aquatic Life and

Wildlife Uses based on chloride violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 860 of 2342

**Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin TMDL Watershed Name: Lancaster Creek TMDL Group ID: 01033 VAP-E25E\_LAN02A02 **Lancaster Creek** LANCASTER CO The mouth of Lancaster Creek downstream of VDH SFC 120B, 9/23/2004, RICHMOND CO not otherwise segmented. Size increased in 2006 cycle. **RPPMH** VA Overall AU Category: **Impairment** Use 1.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 01033 Aquatic Life Chloride 2004 2016 VAP-E25E-16 Lancaster and Morattico Creeks were assessed not supporting of the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Wildlife Chloride 01033 2004 2016 VAP-E25E-16 Lancaster and Morattico Creeks were assessed not supporting of the Aquatic Life and

VAP-E25E LAN03A06 Lancaster Creek RICHMOND CO Described in VDH SFC 023-120M1, 9/23/2004

Size increased in 2006 cycle.

**RPPMH** 

VA Overall AU Category:

Aquatic Life

Wildlife

**Assessment** 

Use

**Impairment** 

Chloride

Chloride

0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

01033

2004

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

2016

VAP-E25E-16

Lancaster and Morattico Creeks were assessed not supporting of the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations.

Impairment Specific Comments and/or Impairment Specific VA Category

Wildlife Uses based on chloride violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

01033 2004 2016 VAP-E25E-16

> Lancaster and Morattico Creeks were assessed not supporting of the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 861 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: Lancaster Creek TMDL Group ID: 01059 VAP-E25E\_LAN01A98 Lancaster Creek LANCASTER CO The segment boundaries are delineated in VDH SFC 120B, 9/23/2004. RICHMOND CO Size reduced in 2006 cycle. **RPPMH** VA Overall AU Category: **Impairment** 0.46 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01059 1998 2010 VAP-E25E-11 VDH shellfish condemnation 020-120B. 9/23/2004 - size reduced in 2006 Sources: Source Unknown TMDL Group ID: 01060 VAP-E25E LAN01A98 **Lancaster Creek** LANCASTER CO The segment boundaries are delineated in VDH SFC 120B, 9/23/2004. RICHMOND CO Size reduced in 2006 cycle. **RPPMH** VA Overall AU Category: **Impairment** Use 0.46 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Recreation **Fecal Coliform** 01060 1998 2016 VAP-E25E-11 In 2004, the segment was also assessed as not supporting the Recreation Use due to a fecal coliform violation rate of 2/18 at 3-LAN002.81, located at the end of Route 1105. There has been no additional fecal coliform or enterococci monitoring since 2001. The TMDL is due in 2016. Sources: Source Unknown TMDL Watershed Name: LaRoque Run TMDL Group ID: 60097 SPOTSYLVANIA CO Segment begins at the headwaters of LaRoque Run and continues VAN-E19R LAR01A04 LaRogue Run downstream until the confluence with the Rappahannock River. VA Overall AU Category: **Impairment** 2.86 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 60097 Recreation **Fecal Coliform** 2006 2018 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 9 samples - 22.2%) were recorded at DEQ's ambient water quality monitoring station (3-LAR000.48) at the Route 620 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown

Final 2006 IR Page 862 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: Leathers Run TMDL Group ID: 60090 VAN-E14R\_LEA01A06 **Leathers Run** MADISON CO Segment begins at the confluence with an unnamed tributary to Leathers Run, approximately 0.65 rivermile downstream from the Route 641 crossing, and continues downstream until the confluence with the Robinson River. VA Overall AU Category: 5A 2.03 MILES Use **Impairment** TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 60090 2006 2018 Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 5 samples -Escherichia coli Recreation 40.0%) were recorded at DEQ's ambient water quality monitoring station (3-LEA000.17) at the Route 609 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown TMDL Watershed Name: Little Branch TMDL Group ID: 10084 LANCASTER CO Tidal limit to mouth at Western Branch Corrotoman River VAP-E26E LIT01A06 Little Branch **CRRMH** VA Overall AU Category: 5A **Impairment** 0.11 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Recreation Enterococcus 10084 2006 2018 VAP-E26E-26 Little Branch was assessed as not supporting of the Recreation Use during the 2006 cycle due to a enterococci violation rate of 3/9 at 3-LIT000.85. Sources: Source Unknown TMDL Watershed Name: Little Carter Creek, Jugs Creek TMDL Group ID: 01038 VAP-E23E LIE01A98 Little Carter Creek, Jugs Creek RICHMOND CO The segment boundaries are defined in VDH shellfish condemnation 068B, 3/6/2002 **RPPMH** VA Overall AU Category: **Impairment** 0.32 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01038 1998 2010 VAP-E23E-02 VDH-DSS SFC 068B, 3/6/2002 remains closed but is now incorporated into SFC 068A, 3/26/2004 Sources: Source Unknown

Final 2006 IR Page 863 of 2342

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
Rappahannock Rive	er Basin		
TMDL Watershed Name:		Little Wicor	mico River
TMDL Group ID:	10026		
VAP-E22R_FAR01A04	Farmers Hall Creek	ESSEX CO	Headwaters to mouth
VA Overall AU Category: <b>5A</b> Use Aquatic Life	Impairment 4.38 MILES pH	TMDL Group ID First Listed on 303(d) TM 10026 <b>2006 2</b>	ADL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 2018 VAP-A34R-02
			In 2006, Farmers Hall Creek was assessed as not supporting of the Aquatic Life Use support goal based on a pH violation rate of 2/13 at the Route 631 bridge (3-FAR002.88).
	Sources:	Natural Conditions - Water Quality Standards	Use Attainability Analyses Needed
TMDL Watershed Name:		Locklies	s Creek
TMDL Group ID:	01082		
VAP-E26E_LOL01A02	Locklies Creek	MIDDLESEX CO	The segment boundaries are delineated in VDH shellfish condemnation 102A, 2/6/2004.
			RPPMH
VA Overall AU Category: <b>5A</b> Use Shellfishing	Impairment 0.10 SQUARE MILES Fecal Coliform	S TMDL Group ID First Listed on 303(d) TM 01082 1998 2	MDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category  2010 VAP-E26E-13
			VDH shellfish condemnation 031-102A, 3/6/2004
	Sources:	Source Unknown	
TMDL Watershed Name:		Marsh	n Run
TMDL Group ID:	00318		
VAN-E08R_MAH01A00	Marsh Run	FAUQUIER CO	Segment begins at the confluence with Harpers Run, at approximately rivermile 2.4, and continues downstream until the confluence with the Rappahannock River.
VA Overall AU Category: <b>5A</b> Use	Impairment 2.25 MILES	TMDL Group ID First Listed on 303(d) TM	MDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	00318 2006 2	Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 7 samples - 28.6%) were recorded at DEQ's ambient water quality monitoring station (3-MAH000.19) at the Route 651 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed, beginning in 1996, for a fecal coliform bacteria impairment.
	Sources:	Source Unknown	

Final 2006 IR Page 864 of 2342

**Assessment** 

Unit ID	Waterbody Name		City / County	/	Assessment Unit Description
Rappahannock Rive	r Basin				
TMDL Watershed Name:			Mars	sh Run	
TMDL Group ID:	00318				
VAN-E08R_MAH02A02	Marsh Run		FAUQUIER CO	)	Segment begins at the confluence with Craig Run and continues downstream until the confluence with Harpers Run, at approximately rivermile 2.4.
VA Overall AU Category: <b>5A</b> Use	Impairment 5.91 MILES	TMDL Group ID Fi	rst Listed on 303(d)	TMDL Schedule	e Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Fecal Coliform	00318	1996	2010	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 4 samples - 75.0%) were recorded at DEQ's ambient water quality monitoring station (3-MAH004.18) at the Route 668 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources:	Source Unknown			
TMDL Group ID:	00843				
VAN-E13R_MAS01A04	Marsh Run		GREENE CO ORANGE CO		Segment begins at the headwaters of Marsh Run and continues downstream until the confluence with the Rapidan River.
VA Overall AU Category: <b>5A</b> Use	Impairment 5.19 MILES	TMDL Group ID Fi	rst Listed on 303(d)	TMDL Schedule	e Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Fecal Coliform	00843	2004	2016	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (4 of 13 samples - 30.8%) were recorded at DEQ's ambient water quality monitoring station (3 MAS001.55) at the Route 644 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources:	Source Unknown			, , , , , , , , , , , , , , , , , , ,
TMDL Watershed Name:			Masons	Mill Swam	пр
TMDL Group ID:	01061				
VAP-E25E_MAO01A00	Masons Mill Swamp		MIDDLESEX C	0	Tidal Masons Mill Swamp watershed - expanded in 2006.
					RPPMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.17 SQUARE MIL	ES TMDL Group ID Fi	rst Listed on 303(d)	TMDL Schedule	e Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	рН	01061	2004	2016	VAP-E25E-17
	Sources	Natural Conditions - V	Vater Quality Standar	ds Use Attaina	Tidal Masons Mill Swamp was assessed as not supporting the Aquatic Life Use based on a pH violation rate of 5/11 at 3-MAO000.62.  bility Analyses Needed

Final 2006 IR Page 865 of 2342

Sources: Source Unknown

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: Massaponax Creek TMDL Group ID: 00850 VAN-E20R\_MAP02A02 **Massaponax Creek** SPOTSYLVANIA CO Segment begins at the confluence with an unnamed tributary to Massaponax Creek, just upstream of Route 1, and continues downstream until the confluence with another unnamed tributary, approximately 0.25 rivermile upstream of Ruffins Pond. VA Overall AU Category: 5A **6.04 MILES** Use **Impairment** TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 00850 2006 2016 Sufficient exceedances of the instantaneous E.coli bacteria criterion (6 of 8 samples -Escherichia coli Recreation 75.0%) were recorded at DEQ's ambient water quality monitoring station (3-MAP007.97) at the Route 1 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown Recreation **Fecal Coliform** 00850 2004 2016 Although the data obtained during the 2006 assessment window shows exceedances of the instantaneous fecal coliform bacteria criterion (0 of 6 samples - 0.0%) is categorized as fully supporting, no additional data has been collected from the DEQ special study station (3-MAP002.61) at Route 609 bridge since the previous assessment window, when the stream reach was first listed as impaired. The segment shall remain categorized as impaired. Sources: Source Unknown TMDL Group ID: 60115 SPOTSYLVANIA CO Segment begins at the confluence with an unnamed tributary to VAN-E20R MAP02A02 **Massaponax Creek** Massaponax Creek, just upstream of Route 1, and continues downstream until the confluence with another unnamed tributary, approximately 0.25 rivermile upstream of Ruffins Pond. VA Overall AU Category: 5A **Impairment 6.04 MILES** Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Ηα 60115 2006 2018 Sufficient exceedances of the instantaneous pH criterion (3 of 8 samples - 37.5%) Aquatic Life were recorded at DEQ's ambient water quality monitoring station (3-MAP007.97) at the Route 1 bridge to assess this stream segment as not supporting of the aquatic life use goal for the 2006 water quality assessment.

Final 2006 IR Page 866 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: **Meachim Creek** TMDL Group ID: 00202 VAP-E26E\_MEA01A00 **Meachim Creek** MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation 179A, 11/17/2004. Expanded in 2006 **RPPMH** VA Overall AU Category: 5D **Impairment** 0.08 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category 00202 Shellfishing **Fecal Coliform** 1998 2005 Category 4A VAP-E26E-01 VDH shellfish condemnation 179A. 11/17/2004 The Shellfish TMDL was completed during the 2006 cycle and approved by EPA on 11/15/2005. The segment should be considered Category 4A for Shellfish, although the EPA TMDL ID was not available at the time of assessment. Sources: Non-Point Source TMDL Group ID: 00203 VAP-E26E MEA01B00 **Meachim Creek** MIDDLESEX CO The segment is delineated in VDH shellfish condemnation 179B, 11/17/2004. **RPPMH** 5D VA Overall AU Category: **Impairment** Use 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category **Fecal Coliform** 00203 1998 2005 Shellfishing Category 4A VAP-E26E-02 VDH shellfish condemnation 030-179B, 11/17/2004 This area was included in the Meachim and Whiting Creek Shellfish TMDL, which was completed during the 2006 cycle and approved by EPA on 11/15/2005. The segment should be considered Category 4A for shellfish, however the EPA TMDL ID was not available at the time of assessment. Sources: Non-Point Source

Final 2006 IR Page 867 of 2342

Assessment

Unit ID	Waterbody Name	City / County	Assessment Unit Description			
Rappahannock Rive	er Basin					
TMDL Watershed Name:		Mill Creek				
TMDL Group ID:	01084					
VAP-E26E_MLL01A98	Mill Creek	MIDDLESEX CO	The segment boundaries are delineated in VDH shellfish condemnation 103, 12/10/1991			
			RPPMH.			
VA Overall AU Category: <b>5A</b> Use Shellfishing		Group ID First Listed on 303(d) TMDL Schedule 21084 1998 2010	Impairment Specific Comments and/or Impairment Specific VA Category VAP-E26E-11			
	Sources: Source l	Inknown	VDH shellfish condemnation 103, 12/10/1991			
TMDL Group ID:	Millenbeck Prong					
	0.000	LANCACTER CO	The houndaries are described in VDI abellish condemnation 407D			
VAP-E26E_MIP01A00	Millenbeck Prong	LANCASTER CO	The boundaries are described in VDH shellfish condemnation 187B, 3/27/2002.			
			Size adjusted in 2006, although area did not change			
			CRRMH			
VA Overall AU Category: <b>5A</b> Use Shellfishing		Group ID First Listed on 303(d) TMDL Schedule 201083 1998 2010	Impairment Specific Comments and/or Impairment Specific VA Category VAP-E26E-32			
			VDH shellfish condemnation 187B, 3/27/2002			
	Sources: Source U	· ·				
TMDL Watershed Name:	Morattico Creek					
TMDL Group ID:	01034					
VAP-E25E_MTT01A00	Morattico Creek	RICHMOND CO	The segment is delineated in VDH SFC 023-120A, 9/23/2004			
			Expanded in 2006 and incorporates previous segment MTT02A00			
			RPPMH			
VA Overall AU Category: <b>5A</b> Use		Group ID First Listed on 303(d) TMDL Schedule				
Aquatic Life	Chloride	01034 <b>2004 2016</b>	VAP-E25E-16			
	Courses Natural	Conditions Water Quality Standards Lles Attains	Lancaster and Morattico Creeks were assessed not supporting of the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations.			
	Sources. Natural C	Conditions - Water Quality Standards Use Attainab	Jilly Allalyses Needed			

Final 2006 IR Page 868 of 2342

Shellfishing

**Fecal Coliform** 

**Assessment Assessment Unit Description Unit ID Waterbody Name** City / County Rappahannock River Basin TMDL Watershed Name: **Morattico Creek** TMDL Group ID: 01062 **Morattico Creek** VAP-E25E\_MTT01A00 RICHMOND CO The segment is delineated in VDH SFC 023-120A, 9/23/2004 Expanded in 2006 and incorporates previous segment MTT02A00 **RPPMH** VA Overall AU Category: Impairment 0.33 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01062 1998 2010 VAP-E25E-12 VDH shellfish condemnation 120A, 9/23/2004 Expanded in 2006 Sources: Source Unknown **Mosquito Creek** TMDL Watershed Name: TMDL Group ID: 01085 VAP-E26E\_MOS01A00 **Mosquito Creek** LANCASTER CO The boundaries are delineated in VDH shellfish condemnation 203. 11/6/2003. Expanded in 2006 cycle **RPPMH** VA Overall AU Category: Impairment Use 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2002

2014

VAP-E26E-04

VDH-DSS Shellfish Condemnation 203, 11/6/2003

01085

Sources: Source Unknown

Final 2006 IR Page 869 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basii
--------------------------

TMDL Watershed Name: Mount Landing Creek

TMDL Group ID: 01048

VAP-E23R\_MTL01A98 Mount Landing Creek from the first tributary upstream of the Route 716

bridge downstream to the tidal limit at approximately river mile 4.44.

VA Overall AU Category: **5A** 

Use Impairment 1.19 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Fecal Coliform 01048 2004 2016 VAP-E23R-06

The segment was assessed as not supporting of the Recreation Use during the year 2004 cycle based on a fecal coliform violation rate of 4/35 at the Route 716 bridge (3-MTL004.82). During the 2006 cycle, the violation rate for FC was 0/15 and for E. coli was 1/9. Although the FC violation rate is acceptable, there has been no additional FC monitoring since 2002 and the recent E. coli monitoring is not sufficient for delisting. Therefore the segment must remain impaired based on the previous assessment until additional E. coli monitoring can be conducted.

Sources: Source Unknown

Final 2006 IR Page 870 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin	
----------------------	------	--

TMDL Watershed Name: Mountain Run

TMDL Group ID:

00110

VAN-E09R\_MTN01A00 Mountain Run CULPEPER CO

Segment begins at the confluence with Flat Run and continues downstream until the confluence with the Rappahannock River.

VA Overall AU Category: 5D

Recreation

Use Impairment

Impairment 7.40 MILES

Escherichia coli

TMDL Group ID First Listed on 303(d) TMDL Schedule

2001

2006

Impairment Specific Comments and/or Impairment Specific VA Category

Sufficient exceedances of the instantaneous E.coli bacteria criterion (5 of 9 samples - 55.6%) were recorded at DEQ's ambient water quality monitoring station (3-MTN000.59) at the Route 620 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment has been listed for a fecal coliform impairment since 1996.

A fecal coliform TMDL for the Mountain Run watershed was developed and submitted to the U.S. EPA and approved on April 27, 2001. The sources of fecal coliform bacteria requiring reductions are livestock and wildlife waste delivered directly to the stream, runoff from pastureland, manure storage areas, and urban stormwater, and human contributions from straight pipes.

Segment listed as Category 4A - Federal ID 20395.

Sources: Grazing in Riparian or Shoreline Zones

00110

Impervious Surface/Parking Lot Runoff Livestock (Grazing or Feeding Operations)

Manure Runoff

Runoff from Forest/Grassland/Parkland Sewage Discharges in Unsewered Areas

Waterfowl

Wildlife Other than Waterfowl

Recreation Fecal Coliform 00110 1996 2001

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (10 of 25 samples - 40.0%) were recorded at DEQ's ambient water quality monitoring station (3-MTN000.59) at the Route 620 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.

A fecal coliform TMDL for the Mountain Run watershed was developed and submitted to the U.S. EPA and approved on April 27, 2001. The sources of fecal coliform bacteria requiring reductions are livestock and wildlife waste delivered directly to the stream, runoff from pastureland, manure storage areas, and urban stormwater, and human contributions from straight pipes.

Segment listed as Category 4A - Federal ID 20395.

Sources: Grazing in Riparian or Shoreline Zones

Impervious Surface/Parking Lot Runoff Livestock (Grazing or Feeding Operations)

Manure Runoff

Runoff from Forest/Grassland/Parkland Sewage Discharges in Unsewered Areas

Waterfowl

Wildlife Other than Waterfowl

Final 2006 IR Page 871 of 2342

**Assessment** 

Unit ID	Waterbody Name	City / County	Assessment Unit Description					
Rappahannock Rive	er Basin							
TMDL Watershed Name:	Mountain Run							
TMDL Group ID:	20021							
VAN-E09R_MTN05A04	Mountain Run	CULPEPER CO	Segment begins at the confluence with an unnamed tributary that flows from Caymore Lake and continues downstream until Lake Pelham.					
VA Overall AU Category: <b>5A</b> Use	Impairment 1.57 MILES	TMDL Group ID First Listed on 303(d) TMD	L Schedule Impairment Specific Comments and/or Impairment Specific VA Category					
Recreation	Escherichia coli	20021 <b>2006 2</b> 0	Sufficient exceedances of the instantaneous E.coli bacteria criterion (5 of 8 samples - 62.5%) were recorded at DEQ's ambient water quality monitoring station (3-MTN027.08) at the Route 641 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.					
	Sources	Source Unknown						
Recreation	Fecal Coliform	20021 <b>2006 20</b>	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (4 of 9 samples - 44.4%) were recorded at DEQ's ambient water quality monitoring station (3-MTN027.08) at the Route 641 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.					
	Sources:	: Source Unknown						
TMDL Group ID:	60096							
VAN-E17R_MTR02A02	Mountain Run	ORANGE CO	Segment begins at the headwaters of Mountain Run and continues downstream until the confluence with Mill Run.					
VA Overall AU Category: <b>5A</b> Use	Impairment 7.35 MILES	TMDL Group ID First Listed on 303(d) TMD	L Schedule Impairment Specific Comments and/or Impairment Specific VA Category					
Recreation	Escherichia coli	60096 2006 20	18 Sufficient exceedances of the instantaneous E.coli bacteria criterion (6 of 12 samples - 50.0%) were recorded at DEQ's special study monitoring station (3-MTR010.60) at the Route 666 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.					
	Sources	Source Unknown						
TMDL Group ID:	60137							
VAN-E09R_MTN01A00	Mountain Run	CULPEPER CO	Segment begins at the confluence with Flat Run and continues downstream until the confluence with the Rappahannock River.					
VA Overall AU Category: <b>5D</b> Use	Impairment 7.40 MILES	TMDL Group ID First Listed on 303(d) TMD	L Schedule Impairment Specific Comments and/or Impairment Specific VA Category					
Fish Consumption	PCB in Fish Tissue		The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel consumption to no more than two meals per month. The affected stretch of Mountain Run extends roughly 19 miles, from the Route 15/29 bridge crossing near Culpeper City downstream until the confluence with the Rappahannock River.					
	Sources:	Source Unknown						

Final 2006 IR Page 872 of 2342

**Assessment** 

Rappahannock Rive	er Basin			
TMDL Watershed Name:			Mountain Run	
TMDL Group ID:	60137			
VAN-E09R_MTN02A04	Mountain Run	(		Segment begins at the confluence with Jonas Run and continues downstream until the confluence with Flat Run.
VA Overall AU Category: <b>5A</b> Use	Impairment 5.30 MILES	TMDL Group ID First Li	isted on 303(d) TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	60137 <b>2</b>	 	The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel consumption to no more than two meals beer month. The affected stretch of Mountain Run extends roughly 19 miles, from the Route 15/29 bridge crossing near Culpeper City downstream until the confluence with the Rappahannock River.
	Sources:	Source Unknown		
VAN-E09R_MTN03A00	Mountain Run	(		Segment begins at the Route 15/29 bridge crossing and continues downstream until the confluence with Jonas Run.
VA Overall AU Category: <b>5A</b> Use	Impairment 7.05 MILES	TMDL Group ID First Li	isted on 303(d) TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	60137 <b>2</b>	 	The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel consumption to no more than two meals per month. The affected stretch of Mountain Run extends roughly 19 miles, from the Route 15/29 bridge crossing near Culpeper City downstream until the confluence with the Rappahannock River.
	Sources:	Source Unknown		
TMDL Group ID:	60152			
VAN-E09R_MTN04A04	Mountain Run	(		Segment begins at the outlet from Lake Pelham and continues downstream until the Route 15/29 bridge crossing.
VA Overall AU Category: <b>5A</b> Use	Impairment 4.48 MILES	TMDL Group ID First Li	isted on 303(d) TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Fecal Coliform	60152 <b>2</b>	<u> </u>	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 8 samples - 25.0%) were recorded at DEQ's ambient water quality monitoring station (3-MTN022.49) at the Route 522 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources:	Source Unknown		

Final 2006 IR Page 873 of 2342

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin TMDL Watershed Name: **Mud Creek** TMDL Group ID: 10076 VAP-E25R\_MUC01A00 **Mud Creek** MIDDLESEX CO Mud Creek from its headwaters to the extent of tidal influence. VA Overall AU Category: Impairment 2.84 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life Oxygen, Dissolved 10076 2006 2016 VAP-E25R-01 Mud Creek was assessed as not supporting the Aquatic Life Use support goal based on a dissolved oxygen violation rate of 4/11 and a pH violation rate of 9/11 at 3-The station was mistakenly classified as tidal during the 2004 cycle. Therefore, although the DO impairment was only first assigned to this segment in 2006, the Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed TMDL Group ID: 10077 MIDDLESEX CO VAP-E25R MUC01A00 **Mud Creek** Mud Creek from its headwaters to the extent of tidal influence. 5C VA Overall AU Category: **Impairment** 2.84 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category pН 10077 2006 2018 VAP-E25R-01 Aquatic Life Mud Creek was assessed as not supporting the Aquatic Life Use support goal based on a dissolved oxygen violation rate of 4/11 and a pH violation rate of 9/11 at 3-Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed TMDL Group ID: 10078 VAP-E25E MUC01A04 **Mud Creek** MIDDLESEX CO Described in VDH SFC 027-090A, 11/15/2004 **RPPMH** VA Overall AU Category: **Impairment** Use 0.19 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 10078 2006 2018 VAP-E25E-06 VDH Shellfish Condemnation 027-090A, 11/15/2004 The Shellfish TMDL report for "Rappahannock River: Mud and Parrotts Creeks" was approved by EPA on 11/15/2005. However, Mud Creek was open for harvest and the

Final 2006 IR Page 874 of 2342

Sources: Source Unknown

monitoring station was not included in the TMDL.

Sources: Source Unknown

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin **Muddy Creek** TMDL Watershed Name: TMDL Group ID: 00851 VAN-E21R\_MUY01A00 **Muddy Creek** KING GEORGE CO Segment begins at the confluence with an unnamed tributary to Muddy STAFFORD CO Creek, approximately 0.7 rivermile downstream from Route 218, and continues downstream until the confluence with the Rappahannock River. VA Overall AU Category: **Impairment** 3.87 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Use Aquatic Life pН 00851 2004 2016 Although the data obtained during the 2006 assessment window shows exceedances of the instantaneous pH criterion (1 of 4 samples - 25.0%) is categorized as not assessed, no data has been collected from the DEQ's ambient water quality monitoring station (3-MUY001.43) at Route 3 since the previous assessment window. The segment shall remain categorized as impaired. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed TMDL Watershed Name: **Mulberry Creek** TMDL Group ID: 01063 VAP-E25E MUB01A02 **Mulberry Creek** LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation 023-021A, 9/23/2004 Size reduced in 2006 **RPPMH** VA Overall AU Category: Impairment 0.27 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01063 1998 2010 VAP-E25E-13 VDH shellfish condemnation 023-121A, 9/23/2004 - Size reduced in 2006 cycle.

Final 2006 IR Page 875 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin **Mulberry Creek** TMDL Watershed Name: TMDL Group ID: 01064 VAP-E25E\_MUB01A02 **Mulberry Creek** LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation 023-021A, 9/23/2004 Size reduced in 2006 **RPPMH** VA Overall AU Category: 5A **Impairment** Use 0.27 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 01064 Recreation **Fecal Coliform** 1998 2016 VAP-E25E-13 In 2004, the segment was assessed as not supporting the Recreation Use due to a fecal coliform violation rate of 2/18 at 3-MUB000.46, located at the end of Route 748. There has been no additional monitoring since 2001. The TMDL is due in 2016. The size was adjusted in 2006 to remain coincident with the shellfish condemnation. Sources: Source Unknown TMDL Group ID: 10075 VAP-E25E\_MUB01A02 **Mulberry Creek** LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation 023-021A, 9/23/2004 Size reduced in 2006 **RPPMH** VA Overall AU Category: **Impairment** 0.27 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category 10075 Aquatic Life Chloride 2006 2018 VAP-E25E-03 Mulberry Creek was assessed as impaired of the Aquatic Life Use based on chloride violations at 3-MUB000.46. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Wildlife Chloride 10075 2006 2018 VAP-E25E-03 Mulberry Creek was assessed as impaired of the Aquatic Life Use based on chloride violations at 3-MUB000.46. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 876 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Mulberry Creek

TMDL Group ID: 10075

VAP-E25E\_MUB02A06 Mulberry Creek LANCASTER CO Downstream of VDH shellfish condemnation 023-021A, 9/23/2004

Size reduced in 2006

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.22 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Chloride 10075 2006 2018 VAP-E25E-03

Mulberry Creek was assessed as impaired of the Aquatic Life Use based on chloride

violations at 3-MUB000.46.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Wildlife Chloride 10075 2006 2018 VAP-E25E-03

Mulberry Creek was assessed as impaired of the Aquatic Life Use based on chloride

violations at 3-MUB000.46.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

TMDL Group ID: 90705

VAP-E25E\_MTT01A00 Morattico Creek RICHMOND CO The segment is delineated in VDH SFC 023-120A, 9/23/2004

Expanded in 2006 and incorporates previous segment MTT02A00

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.33 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Wildlife **Chloride** 90705 **2004 2016** VAP-E25E-16

Lancaster and Morattico Creeks were assessed not supporting of the Aquatic Life and

Wildlife Uses based on chloride violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 877 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin Mussell Swamp TMDL Watershed Name: TMDL Group ID: 10103 VAP-E23R\_MUS01A04 Mussell Swamp **ESSEX CO** Headwaters to tidal limit VA Overall AU Category: Impairment 4.13 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life Oxygen, Dissolved 10103 2006 2018 VAP-E23R-12 In 2006, Mussell Swamp was assessed as impaired for the Aquatic Life Use based on a DO violation rate of 2/16 at 3-MUS001.23. Although natural conditions are suspected, the segment is assessed as Cat. 5C until the natural conditions assessment for DO can be performed. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed TMDL Watershed Name: **Mver Creek** TMDL Group ID: 01086 LANCASTER CO Myer Creek The boundaries are described in VDH shellfish condemnation 198B. VAP-E26E MYE01A00 11/6/2003. Size adjusted in 2006 **CRRMH** VA Overall AU Category: Use **Impairment** 0.08 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01086 2010 VAP-E26E-05 1998 VDH shellfish condemnation 21-198B, 11/6/2003 Sources: Source Unknown TMDL Group ID: 01087 LANCASTER CO As described in VDH-DSS SFC 21-198C, 11/6/2003. VAP-E26E\_MYE01B02 Myer Creek, UT Size adjusted in 2006, although area did not change **CRRMH** VA Overall AU Category: **Impairment** 0.04 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01087 2002 2014 VAP-E26E-31 VDH-DSS Shellfish Condemnation 21-198C, 11/6/2003 Sources: Source Unknown

Final 2006 IR Page 878 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Myer Creek

TMDL Group ID: 01088

VAP-E26E\_MYE01C04 Myer Creek LANCASTER CO Described in VDH Condemnation 21-198A, 11/6/2003

CRRMH

VA Overall AU Category: **5A** 

Use Impairment 0.05 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

USE Impairment of Security Miles and the Security of This cisted on 305(d) This cisted o

 Shellfishing
 Fecal Coliform
 01088
 2004
 2016
 VAP-E26E-36

VDH Shellfish Condemnation 21-198A, 11/6/2003

Sources: Source Unknown

TMDL Watershed Name: Occupacia Creek

TMDL Group ID: 00255

VAP-E22R\_OCC01A98 Occupacia Creek ESSEX CO Occupacia Creek from Hunters Millpond downstream to the tidal limit.

VA Overall AU Category: **5A** 

Use Impairment 2.76 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Escherichia coli 00255 2006 2014 VAP-E22R-01

Occupacia Creek was initially assessed as impaired of the Recreation Use during the 2002 cycle. During the 2006 cycle, the segment remained not supporting based on a fecal coliform violation rate of 3/19 at the Route 17 bridge (3-OCC010.47). In addition, in 2006 the segment is also impaired for E. coli based on a violation rate of 2/11 at 3-

OCC010.47. The bacteria TMDL is due in 2014.

Sources: Source Unknown

Recreation Fecal Coliform 00255 2002 2014 VAP-E22R-01

Occupacia Creek was initially assessed as impaired of the Recreation Use during the 2002 cycle. During the 2006 cycle, the segment remained not supporting based on a fecal coliform violation rate of 3/19 at the Route 17 bridge (3-OCC010.47). In addition, in 2006 the segment is also impaired for E. coli based on a violation rate of 2/11 at 3-

OCC010.47. The bacteria TMDL is due in 2014.

Sources: Source Unknown

Final 2006 IR Page 879 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock .	River	Basin
----------------	-------	-------

TMDL Watershed Name: Occupacia Creek and tributaries

TMDL Group ID:

10111

VAP-E22R\_OCC01B06 Occupacia Creek and tributaries **ESSEX CO** Occupacia Creek from the headwaters to Hunters Millpond dam, and all

tribs entering above the tidal limit.

VA Overall AU Category:

Use

**Impairment** 37.10 MILES

TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 10111 2006 2018 VAP-E22R-03

> Since 2002, Occupacia Creek from the Hunters Millpond dam downstream to the tidal limit has been assessed as not supporting for the Aquatic Life Use based on pH violations at 3-OCC010.47. During the 2006 cycle, a Natural Conditions Assessment for low pH in Occupacia Creek was performed. The report recommends that the tidal Occupacia Creek watershed above the fall line (including Black Water Creek and its tribs) be reclassified as Class VII swampwaters. Until the reclassification, the

watershed will be considered Cat. 4C for pH.

The segment also shows impairment for dissolved oxygen. Although the low DO is believed to be caused by natural low-slope conditions, the segment is assessed as

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

TMDL Watershed Name: **Parrotts Creek** 

TMDL Group ID:

00199

MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation 027-VAP-E25E\_PRR01A02 **Parrotts Creek** 

090B. 11/15/2004.

**RPPMH** 

VA Overall AU Category: 5D

Use

**Impairment** 

0.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

00199 Shellfishing **Fecal Coliform** 1998 2005 Category 4A

VAP-E25E-07

The Shellfish TMDL report for "Rappahannock River: Mud and Parrotts Creeks" was approved by EPA on 11/15/2005. Therefore, the shellfish impairment is considered

Cat. 4A.

Sources: Non-Point Source

Final 2006 IR Page 880 of 2342

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin TMDL Watershed Name: **Piscataway Creek** TMDL Group ID: 01029 VAP-E23E\_PIS02A00 **Piscataway Creek ESSEX CO** The estuarine portion of Piscataway Creek. **RPPMH** VA Overall AU Category: **Impairment** 0.71 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life Chloride 01029 2004 2016 VAP-E23E-04 In the 2004 cycle, the segment was assessed not supporting of the Aquatic Life and Wildlife Uses due to chloride violations. This TMDL is due in 2016. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Wildlife 01029 Chloride 2004 2016 VAP-E23E-04 In the 2004 cycle, the segment was also assessed not supporting of the Aquatic Life and Wildlife Uses due to chloride violations. This TMDL is due in 2016. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed TMDL Group ID: 01040 VAP-E23E PIS02A00 **Piscataway Creek ESSEX CO** The estuarine portion of Piscataway Creek. **RPPMH** VA Overall AU Category: 5A Impairment Use 0.71 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01040 1998 2010 VAP-E23E-01 Portion of VDH-DSS Shellfish Condemnation 068A, 3/26/2004 Sources: Source Unknown TMDL Watershed Name: Piscataway Creek, Unnamed Tributary TMDL Group ID: 10101 **ESSEX CO** Headwaters to mouth at Piscataway Creek VAP-E23R XFN01A04 **UT to Piscataway Creek** 5C VA Overall AU Category: **Impairment** 3.25 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life Oxygen, Dissolved 10101 2006 2018 VAP-E23R-10 During the 2006 cycle, UT XFN was assessed as impaired of the Aquatic Life Use based on a dissolved oxygen violation rate of 2/15 at 3-XFN000.01. Natural conditions are suspected, therefore the segment is assessed as Cat. 5C until the

Final 2006 IR Page 881 of 2342

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

natural conditions assessment for DO can be performed.

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin TMDL Watershed Name: Piscataway Creek, Unnamed Tributary TMDL Group ID: 10102 VAP-E23R\_XFM01A04 **UT to Piscataway Creek ESSEX CO** Headwaters to mouth VA Overall AU Category: **Impairment** 3.01 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life Oxygen, Dissolved 10102 2006 2018 VAP-E23R-11 During the 2006 cycle, UT XFM was assessed as impaired of the Aquatic Life Use based on a dissolved oxygen violation rate of 2/18 at 3-XFM000.82. Natural Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed TMDL Watershed Name: Rapidan River TMDL Group ID: 00320 **CULPEPER CO** Segment begins at the confluence with Wilderness Run, rivermile 7.78, and VAN-E18R RAP03A02 Rapidan River SPOTSYLVANIA CO continues downstream until the confluence with Middle Run. 5A VA Overall AU Category: 2.68 MILES **Impairment** Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 00320 Recreation Escherichia coli 2006 2010 Sufficient exceedances of the instantaneous E.coli bacteria criterion (7 of 12 samples - 58.3%) were recorded at DEQ's ambient water quality monitoring station (3-RAP006.53) at the Route 610 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for fecal coliform, beginning in 2002. Sources: Source Unknown TMDL Group ID: 00844 **MADISON CO** Segment begins at the confluence with Poplar Run and continues VAN-E13R RAP01A00 Rapidan River **ORANGE CO** downstream until the confluence with the Robinson River. 5A VA Overall AU Category: **Impairment** 7.50 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Sufficient exceedances of the instantaneous E.coli bacteria criterion (6 of 14 Escherichia coli 00844 2006 2014 Recreation samples - 42.8%) were recorded at DEQ's ambient water quality monitoring station (3-RAP045.08) at the Route 15 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for fecal coliform bacteria impairment, beginning in 2002, but is no longer applicable since enough E.coli sampling events have occurred. Sources: Source Unknown

Final 2006 IR Page 882 of 2342

**Assessment** 

Unit ID	Waterbody Name		City / County	у	Assessment Unit Description
Rappahannock K	iver Basin				
TMDL Watershed Name:			Rapid	an River	
TMDL Grou	60082				
VAN-E12R_RAP01A00	Rapidan River		GREENE CO MADISON CO	)	Segment begins at the Route 29 crossing, at rivermile 66.54, and continues downstream until the confluence with White Run.
VA Overall AU Category: Use	5A Impairment 2.07 MILES	TMDL Group ID Fit	rst Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	60082	2006	2018	Sufficient exceedances of the instantaneous E.coli bacteria criterion (4 of 15 samples - 26.7%) were recorded at DEQ's ambient water quality monitoring station (3-RAP066.54) at the Route 29 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources	s: Source Unknown			
VAN-E12R_RAP01B06	Rapidan River		GREENE CO MADISON CC	)	Segment begins at the confluence with the Conway River and continues downstream until the Route 29 crossing, at rivermile 66.54.
VA Overall AU Category: Use	Impairment 4.86 MILES	TMDL Group ID Fi	rst Listed on 303(d)	TMDL Schedule	e Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	60082	2006	2018	Sufficient exceedances of the instantaneous E.coli bacteria criterion (4 of 15 samples - 26.7%) were recorded at DEQ's ambient water quality monitoring station (3-RAP066.54) at the Route 29 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources	s: Source Unknown			, , , , , , , , , , , , , , , , , , ,
TMDL Grou	DID: 60087				
VAN-E13R_RAP02A06	Rapidan River		MADISON CO ORANGE CO		Segment begins at the confluence with Marsh Run and continues downstream until the confluence with Blue Run.
VA Overall AU Category: Use	Impairment 4.59 MILES	TMDL Group ID Fit	rst Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	60087	2006	2018	Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 6 samples - 33.3%) were recorded at DEQ's ambient water quality monitoring station (3-RAP055.84) at the Route 231 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources	: Source Unknown			
Recreation	Fecal Coliform	60087	2006	2018	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 11 samples - 27.3%) were recorded at DEQ's ambient water quality monitoring station (3-RAP055.84) at the Route 231 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources	s: Source Unknown			

Final 2006 IR Page 883 of 2342

**Assessment** 

Unit ID	Waterbody Name		City / Count	у	Assessment Unit Description
Rappahannock Rive	er Basin				
TMDL Watershed Name:			Rapio	lan River	
TMDL Group ID:	60094				
VAN-E16R_RAP01A04	Rapidan River		CULPEPER CO ORANGE CO		Segment begins at the confluence with an unnamed tributary to the Rapidan River, at rivermile 34.5, approximately 0.6 rivermile downstream from Route 689, and continues downstream until the confluence with Cedar Run.
VA Overall AU Category: <b>5A</b> Use	Impairment 4.58 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	e Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	60094	2006	2018	Sufficient exceedances of the instantaneous E.coli bacteria criterion (7 of 15 - 46.7%) were recorded at DEQ's ambient water quality monitoring station (3-RAP030.21) at the Route 522 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
	Sources:	Source Unknown			
TMDL Watershed Name:		F	Rapidan River,	Unnamed <sup>·</sup>	Tributary
TMDL Group ID:	00845				
VAN-E13R_XEZ01A04	Unnamed tributary to the Rapidan Riv	ver .	ORANGE CO	)	Segment begins at the headwaters of the unnamed tributary and continues downstream until the confluence with the Rapidan River.
VA Overall AU Category: <b>5A</b> Use	Impairment 2.57 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	e Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	00845	2006	2016	Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 5 samples - 40.0%) were recorded at DEQ's ambient water quality monitoring station (3-XEZ000.12) at the Route 634 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for fecal coliform bacteria impairment, beginning in 2004.
		Source Unknown			
Recreation	Fecal Coliform	00845	2004	2016	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 7 samples - 42.8%) were recorded at DEQ's ambient water quality monitoring station (3-XEZ000.12) at the Route 634 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment.
		Source Unknown			
TMDL Group ID:	60088				
VAN-E13R_XBO01A04	Unnamed tributary to Rapidan River		MADISON CO	)	Segment begins at the headwaters of the unnamed tributary and continues downstream until the confluence with the Rapidan River.
VA Overall AU Category: <b>5A</b> Use	Impairment 3.91 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	e Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Fecal Coliform	60088	2006	2018	Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (5 of 7 samples - 71.4%) were recorded at DEQ's ambient water quality monitoring station (3-XBO000.26) at the Route 621 bridge to assess this stream segment as not supporting of the recording the conditions and the condition of the conditions are stream as
	Sources:	Source Unknown			of the recreation use goal for the 2006 water quality assessment.

Final 2006 IR Page 884 of 2342

**Assessment Assessment Unit Description** City / County **Waterbody Name Unit ID** 

Ra	ppak	hann	ock	River	Basin
----	------	------	-----	-------	-------

TMDL Watershed Name: Rappahannock River

TMDL Group ID:

01028

VAP-E22E\_RPP01A02 Rappahannock River **ESSEX CO** The Rappahannock River from Devils Elbow at Toby Point and Green Bay

WESTMORELAND CO (river mile 70.52) downstream to the tidal freshwater/oligohaline boundary at

river mile 57.85.

**RPPTF** 

VA Overall AU Category:

Impairment 5.42 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Chloride 01028 2004 2016 VAP-E22E-08

> The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Wildlife Chloride 01028 VAP-E22E-08 2004 2016

The lower tidal freshwater and transitional areas of the Rappahannock River are

assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

VAP-E22E RPP02A02 **ESSEX CO** The Rappahannock River from the tidal freshwater/oligohaline boundary Rappahannock River WESTMORELAND CO downstream to river mile 51.04.

**RPPOH** 

VA Overall AU Category:

**Impairment** Use 0.32 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

01028 VAP-E22E-08 Aquatic Life Chloride 2004 2016

The lower tidal freshwater and transitional areas of the Rappahannock River are

assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Wildlife 01028 Chloride 2004 2016 VAP-E22E-08

The lower tidal freshwater and transitional areas of the Rappahannock River are

assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 885 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

TMDL Watershed Name: Rappahannock River

TMDL Group ID: 01028

RICHMOND CO

RPPOH

VA Overall AU Category: **5A** 

Use Impairment 1.60 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Chloride 01028 2004 2016 VAP-E22E-08

The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Wildlife Chloride 01028 2004 2016 VAP-E22E-08

The lower tidal freshwater and transitional areas of the Rappahannock River are

assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

VAP-E22E\_RPP04A02 Rappahannock River ESSEX CO The Rappahannock River from river mile 49.04 downstream to the RICHMOND CO oligonaline/mesohaline boundary at approximately river mile 48.51.

RPPOH

VA Overall AU Category: **5A** 

Use Impairment 0.93 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Chloride 01028 2004 2016 VAP-E22E-08

The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Wildlife Chloride 01028 2004 2016 VAP-E22E-08

The lower tidal freshwater and transitional areas of the Rappahannock River are

assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 886 of 2342

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin TMDL Watershed Name: Rappahannock River TMDL Group ID: 01028 VAP-E22E\_RPP05A02 Rappahannock River **ESSEX CO** The oligonaline/mesonaline boundary at river mile 48.51 downstream to the RICHMOND CO upstream limit of VDH shellfish condemnation area 068A in E23. 2006: incorporates old segments VAP-E22E RPP06A02 & VAP-E23E\_RPP01A00 & extended **RPPMH** VA Overall AU Category: **Impairment** 6.95 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life Chloride 01028 2004 2016 VAP-E22E-08 The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Wildlife Chloride 01028 2004 2016 VAP-E22E-08 The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed VAP-E23E RPP02A98 **ESSEX CO** Mainstem Rappahannock as described in VDH shellfish condemnation Rappahannock River RICHMOND CO 068A, 3/26/2004. Segment extended in 2006 **RPPMH** VA Overall AU Category: **Impairment** 5.48 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category 01028 VAP-E22E-08 Aquatic Life Chloride 2004 2016 The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Wildlife 01028 VAP-E22E-08 Chloride 2004 2016 The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 887 of 2342

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin TMDL Watershed Name: Rappahannock River TMDL Group ID: 01028 VAP-E23E\_RPP03A00 Rappahannock River **ESSEX CO** The Rappahannock River from the VDH shellfish condemnation 068A downstream to Sharps/0.7mi DS of Mark Haven Beach. Incorporates RICHMOND CO previous segment VAP-E24E RPP01A98 and extended. **RPPMH** VA Overall AU Category: **Impairment** Use 20.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 01028 Aquatic Life Chloride 2004 2016 VAP-E22E-08. VAN-E20E-03. VAP-E22E-01 The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Wildlife Chloride 01028 2004 2016 VAP-E22E-08 The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed VAP-E24E RPP01C06 Rappahannock River RICHMOND CO The Rappahannock River within the VDH shellfish condemnation 025-071A, 12/22/2004 **RPPMH** VA Overall AU Category: **Impairment** Use 0.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Chloride 01028 2016 Aquatic Life 2004 VAP-E22E-08, VAN-E20E-03, VAP-E22E-01 The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Wildlife 01028 Chloride 2004 2016 VAP-E22E-08 The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 888 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River

TMDL Group ID:

01028

VAP-E24E\_RPP02B06 Rappahannock River ESSEX CO The Rappahannock River as described in VDH SFC 028-M271, 4/1/1995

RICHMOND CO

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Chloride 01028 2004 2016 VAP-E22E-08, VAN-E20E-03, VAP-E22E-01

The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Wildlife Chloride 01028 2004 2016 VAP-E22E-08

The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

VAP-E25E RPP01A02 Rappahannock River

ESSEX CO RICHMOND CO The mainstem of the Rappahannock River from Sharps/0.7 mi DS of Mark

Haven Beach to the WQS saltwater boundary at Buoy 11 near Morattico

Size adjusted in 2006

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 12.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Chloride 01028 2004 2016 VAP-E22E-08

The lower tidal freshwater and transitional areas of the Rappahannock River are

assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Wildlife Chloride 01028 2004 2016 VAP-E22E-08

The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride

violations at multiple stations.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 889 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: Rappahannock River TMDL Group ID: 01028 VAP-E25E\_RPP03A06 Rappahannock River RICHMOND CO Described in VDH SFC 024-M192, 4/1/1995 **RPPMH** VA Overall AU Category: 5A Use **Impairment** 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Chloride 01028 2004 2016 VAP-E22E-08, VAN-E20E-03, VAP-E22E-01 Aquatic Life The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed 01028 Wildlife Chloride 2004 2016 VAP-E22E-08 The lower tidal freshwater and transitional areas of the Rappahannock River are assessed as not supporting the Aquatic Life and Wildlife Uses based on chloride violations at multiple stations. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed TMDL Group ID: 01041 **ESSEX CO** Mainstem Rappahannock as described in VDH shellfish condemnation VAP-E23E RPP02A98 Rappahannock River RICHMOND CO 068A, 3/26/2004. Segment extended in 2006 **RPPMH** VA Overall AU Category: **Impairment** 5.48 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category **Fecal Coliform** 01041 1998 2010 VAP-E23E-01 Shellfishing VDH Shellfish Condemnation 068A, 3/24/2004 Expanded in 2006 Sources: Source Unknown **ESSEX CO** VAP-E23E ZZZ02A06 **Unsegmented estuaries in E23** Unsegmented portion within SFC 068A, 3/26/2004 RICHMOND CO **RPPMH** VA Overall AU Category: 5A **Impairment** 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category 01041 VAP-E23E-01 Shellfishing **Fecal Coliform** 2006 2010 VDH Shellfish Condemnation 068A, 3/26/2004 Sources: Source Unknown

Final 2006 IR Page 890 of 2342

**Assessment** 

Unit ID	Waterbody Name	City / County	Assessment Unit Description
Rappahannock Rive	er Basin		
TMDL Watershed Name:		Rappahannock R	iver
TMDL Group ID:	01089		
VAP-E26E_RPP02A00	Rappahannock River	MIDDLESEX CO	The Rappahannock River in the area delineated in VDH shellfish condemnation 051A.
			Size corrected in 2006 cycle.
			RPPMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.13 SQUARE MILES TMDL Group I	D First Listed on 303(d) TMDL Scheo	lule Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	Fecal Coliform 01089	1998 2010	VAP-E26E-22
	Courses, Course Helmour		VDH Shellfish Condemnation 051A, 9/10/1997
	Sources: Source Unknown		
TMDL Group ID:	01090		
VAP-E26E_RPP04A00	Rappahannock River	MIDDLESEX CO	VDH Shellfish Condemnation 051B, 9/10/1997
			Sq. mileage adjusted in 2006, although area did not change
			RPPMH
VA Overall AU Category: <b>5A</b> Use Shellfishing	Impairment 0.02 SQUARE MILES TMDL Group II  Fecal Coliform 01090	D First Listed on 303(d) TMDL Scheo 1998 2010	lule Impairment Specific Comments and/or Impairment Specific VA Category VAP-E26E-23
	Sources: Source Unknown	ı	VDH Shellfish Condemnation 051B, 9/10/1997
TMDL Group ID:	01091		
VAP-E26E_RPP07A02	Rappahannock River	LANCASTER CO	As delineated in VDH-DSS SFC 053A, 9/16/1993
			RРРМН.
VA Overall AU Category: <b>5A</b> Use	Impairment 0.10 SQUARE MILES TMDL Group I	D First Listed on 303(d) TMDL Scheo	lule Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	Fecal Coliform 01091	2002 2014	VAP-E26E-28
	Sources: Municipal Point S	Source Discharges	VDH-DSS Shellfish Condemnation 053A, 9/16/1993
	Sources. Wuritcipal Point S	Double Discharges	

Final 2006 IR Page 891 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River

TMDL Group ID: 10069

VAP-E22E\_RPP01A02 Rappahannock River ESSEX CO The Rappahannock River from Devils Elbow at Toby Point and Green Bay

WESTMORELAND CO (river mile 70.52) downstream to the tidal freshwater/oligohaline boundary at

river mile 57.85.

**RPPTF** 

VA Overall AU Category: 5A

Use Impairment 5.42 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10069 2006 2010 VAN-E20E-02

The tidal freshwater Rappahannock failed the SAV acreage requirements of the

Shallow Water subuse during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10069 **2006 2010** VAN-E20E-02

The tidal freshwater Rappahannock failed the SAV acreage requirements of the Shallow Water Use during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 892 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappal	hannock	River	Basin
--------	---------	-------	-------

Rappahannock River TMDL Watershed Name:

TMDL Group ID: 10069

VAP-E22E\_ZZZ01A00 **Unsegmented estuaries in E22 ESSEX CO** Unsegmented portion of watershed.

WESTMORELAND CO

**RPPTF** 

VA Overall AU Category:

**Impairment** 0.29 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Use

Aquatic Life **Aquatic Plants (Macrophytes)** 10069 2006 2010 VAN-E20E-02

The tidal freshwater Rappahannock River failed the SAV acreage requirements for the

Shallow Water Use during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10069 2006 2010 VAN-E20E-02

The tidal freshwater Rappahannock River failed the SAV acreage requirements for the

Shallow Water Use during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 893 of 2342

**Assessment** 

**Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: Rappahannock River TMDL Group ID: 10070 VAP-E22E\_RPP01A02 Rappahannock River **ESSEX CO** The Rappahannock River from Devils Elbow at Toby Point and Green Bay WESTMORELAND CO (river mile 70.52) downstream to the tidal freshwater/oligohaline boundary at river mile 57.85. **RPPTF** VA Overall AU Category: Impairment 5.42 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Fish Consumption PCB in Fish Tissue 10070 2006 2018 VAN-E20E-03 The Rappahannock River from the I-95 bridge above Fredericksburg to the mouth near Stingray Point is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass. Sources: Source Unknown VAP-E22E\_RPP02A02 Rappahannock River **ESSEX CO** The Rappahannock River from the tidal freshwater/oligohaline boundary WESTMORELAND CO downstream to river mile 51.04. **RPPOH** VA Overall AU Category: Use **Impairment** 0.32 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category **PCB** in Fish Tissue 2018 VAN-E20E-03 Fish Consumption 10070 2006 The Rappahannock River from the I-95 bridge above Fredericksburg to the mouth near Stingray Point is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass. Sources: Source Unknown VAP-E22E RPP03A02 Rappahannock River **ESSEX CO** The Rappahannock River from river mile 51.04 to river mile 49.04. RICHMOND CO **RPPOH** VA Overall AU Category: **Impairment** 1.60 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Fish Consumption **PCB** in Fish Tissue 10070 2006 2018 VAN-E20E-03 The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass. Sources: Source Unknown

Final 2006 IR Page 894 of 2342

**Assessment** 

Unit ID	Waterbody Name		City / County		Assessment Unit Description
Rappahannock Rive	r Basin				
TMDL Watershed Name:			Rappahann	ock Rive	er
TMDL Group ID:	10070				
VAP-E22E_RPP04A02	Rappahannock River		ESSEX CO RICHMOND CO		The Rappahannock River from river mile 49.04 downstream to the oligohaline/mesohaline boundary at approximately river mile 48.51.
VA Overall AU Category: <b>5A</b> Use	Impairment 0.93 SQUARE MILES TMDL			DL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	10070 <b>2</b>	006 20	T F	VAN-E20E-03  The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	Unknown			
VAP-E22E_RPP05A02	Rappahannock River		ESSEX CO RICHMOND CO		The oligohaline/mesohaline boundary at river mile 48.51 downstream to the upstream limit of VDH shellfish condemnation area 068A in E23.
					2006: incorporates old segments VAP-E22E_RPP06A02 & VAP-E23E_RPP01A00 & extended
				F	<b>RPPMH</b>
VA Overall AU Category: <b>5A</b> Use	Impairment 6.95 SQUARE MILES TMDL	L Group ID First L	isted on 303(d) TME	DL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	10070 2	006 20	018 \	VAN-E20E-03
				F	The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	Unknown			
VAP-E23E_RPP02A98	Rappahannock River		ESSEX CO RICHMOND CO		Mainstem Rappahannock as described in VDH shellfish condemnation 068A, 3/26/2004.
				S	Segment extended in 2006
				F	RРРМН
VA Overall AU Category: <b>5A</b> Use	Impairment 5.48 SQUARE MILES TMDL	l Group ID First I	isted on 303(d) TMF	Ol Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption		· ·	* *		VAN-E20E-03
				F	The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	Unknown			

Final 2006 IR Page 895 of 2342

**Assessment** 

Unit ID	Waterbody Name	City / County	Assessment Unit Description
Rappahannock Riv	ver Basin		
TMDL Watershed Name:		Rappahannock	River
TMDL Group ID	10070		
VAP-E23E_RPP03A00	Rappahannock River	ESSEX CO RICHMOND CO	The Rappahannock River from the VDH shellfish condemnation 068A downstream to Sharps/0.7mi DS of Mark Haven Beach. Incorporates previous segment VAP-E24E_RPP01A98 and extended.
			RPPMH
VA Overall AU Category: <b>5A</b> Use		DL Group ID First Listed on 303(d) TMDL Sch	
Fish Consumption	PCB in Fish Tissue	10070 <b>2006 2018</b>	VAN-E20E-03
			The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	e Unknown	
VAP-E24E_RPP01C06	Rappahannock River	RICHMOND CO	The Rappahannock River within the VDH shellfish condemnation 025-071A, 12/22/2004
			RPPMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.16 SQUARE MILES TMD	DL Group ID First Listed on 303(d) TMDL Sch	nedule Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	10070 <b>2006 2018</b>	VAN-E20E-03
			The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	e Unknown	
VAP-E24E_RPP02B06	Rappahannock River	ESSEX CO RICHMOND CO	The Rappahannock River as described in VDH SFC 028-M271, 4/1/1995
		MONIMOND 00	RPPMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.03 SQUARE MILES TME	DL Group ID First Listed on 303(d) TMDL Sch	nedule Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	10070 <b>2006 2018</b>	VAN-E20E-03
			The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	e Unknown	

Final 2006 IR Page 896 of 2342

**Assessment** 

Unit ID	Waterbody Name	City / County	Assessment Unit Description
Rappahannock Riv	er Basin		
TMDL Watershed Name:		Rappahannock R	iver
TMDL Group ID	10070		
VAP-E25E_RPP01A02	Rappahannock River	ESSEX CO RICHMOND CO	The mainstem of the Rappahannock River from Sharps/0.7 mi DS of Mark Haven Beach to the WQS saltwater boundary at Buoy 11 near Morattico
			Size adjusted in 2006
			RPPMH
VA Overall AU Category: <b>5A</b> Use Fish Consumption		. Group ID First Listed on 303(d) TMDL Sched 10070 <b>2006 2018</b>	lule Impairment Specific Comments and/or Impairment Specific VA Category VAN-E20E-03
			The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	Unknown	
		LANCASTER CO MIDDLESEX CO	The mainstem of the Rappahannock River from Buoy 11 near Morattico downstream to the mouth, excluding area in SFC 051A.
			Multiple Rappahannock segments merged together in 2006
			RPPMH
VA Overall AU Category: <b>5A</b> Use Fish Consumption		. Group ID First Listed on 303(d) TMDL Sched 10070 <b>2006 2010</b>	lule Impairment Specific Comments and/or Impairment Specific VA Category VAN-E20E-03
			The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	Unknown	
/AP-E25E_RPP03A06	Rappahannock River	RICHMOND CO	Described in VDH SFC 024-M192, 4/1/1995
			RPPMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.01 SQUARE MILES TMDI	. Group ID First Listed on 303(d) TMDL Sched	lule Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	10070 <b>2006 2018</b>	VAN-E20E-03
			The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	Unknown	

Final 2006 IR Page 897 of 2342

**Assessment** 

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
Rappahannock Rive	er Basin		
TMDL Watershed Name:		Rappahannock R	iver
TMDL Group ID:	10070		
VAP-E26E_RPP02A00	Rappahannock River	MIDDLESEX CO	The Rappahannock River in the area delineated in VDH shellfish condemnation 051A.
			Size corrected in 2006 cycle.
			RPPMH
VA Overall AU Category: <b>5A</b> Use		DL Group ID First Listed on 303(d) TMDL Sched	
Fish Consumption	PCB in Fish Tissue	10070 <b>2006 2018</b>	VAN-E20E-03
			The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	Unknown	
VAP-E26E_RPP03A00	Rappahannock River	MIDDLESEX CO	The Rappahannock River in the area delineated in VDH shellfish condemnation 051D, 9/10/1997.
			RPPMH
VA Overall AU Category: <b>5A</b>	Impairment 0.03 SQUARE MILES TMF	N. Cuevra ID. First Listed on 202/d). TMDI Cabad	dula Transisment Consider Community and (as Transisment Consider MA Cobance.
Use Fish Consumption	PCB in Fish Tissue	DL Group ID First Listed on 303(d) TMDL Sched 10070 <b>2006 2018</b>	dule Impairment Specific Comments and/or Impairment Specific VA Category VAN-E20E-03
			The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	Unknown	, , ,
VAP-E26E_RPP04A00	Rappahannock River	MIDDLESEX CO	VDH Shellfish Condemnation 051B, 9/10/1997
			Sq. mileage adjusted in 2006, although area did not change
			RPPMH
VA Overall AU Category: <b>5A</b> Use	Impairment 0.02 SQUARE MILES TME	DL Group ID First Listed on 303(d) TMDL Sched	dule Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	10070 <b>2006 2018</b>	VAN-E20E-03
			The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, anadromous (coastal) striped bass.
	Sources: Source	Unknown	. , .

Final 2006 IR Page 898 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappa	hannoci	k River I	Basin
-------	---------	-----------	-------

TMDL Watershed Name: Rappahannock River

TMDL Group ID: 10070

VAP-E26E\_RPP05A00 Rappahannock River MIDDLESEX CO The area delineated in VDH shellfish condemnation 051E, 9/10/1997

RPPMH.

VA Overall AU Category: **5A** 

Use Impairment

0.14 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Fish Consumption PCB in Fish Tissue 10070 2006 2018 VAN-E20E-03

The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for PCBs in American eel, blue catfish, carp, channel catfish, croaker, qizzard shad,

anadromous (coastal) striped bass.

Sources: Source Unknown

VAP-E26E RPP07A02 Rappahannock River LANCASTER CO As delineated in VDH-DSS SFC 053A, 9/16/1993

RPPMH.

VA Overall AU Category: 5A

Use

Impairment 0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Fish Consumption PCB in Fish Tissue 10070 2002 2018 VAN-E20E-03

The Rappahannock River is under a 12/13/2004 VDH fish consumption advisory for

PCBs in American eel, blue catfish, carp, channel catfish, croaker, gizzard shad,

anadromous (coastal) striped bass.

Sources: Source Unknown

Final 2006 IR Page 899 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: Rappahannock River TMDL Group ID: 10126 VAP-E22E\_RPP05A02 Rappahannock River ESSEX CO The oligonaline/mesonaline boundary at river mile 48.51 downstream to the RICHMOND CO upstream limit of VDH shellfish condemnation area 068A in E23. 2006: incorporates old segments VAP-E22E RPP06A02 & VAP-E23E\_RPP01A00 & extended **RPPMH** VA Overall AU Category: **Impairment** 6.95 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life **Estuarine Bioassessments** 10126 2006 2018 VAP-E22E-02 (10126) In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river." Sources: Source Unknown **ESSEX CO** VAP-E23E RPP02A98 Rappahannock River Mainstem Rappahannock as described in VDH shellfish condemnation RICHMOND CO 068A, 3/26/2004. Segment extended in 2006

**RPPMH** 

VA Overall AU Category:

Use

**Impairment** 5.48 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

10126 2006 2018 Aquatic Life **Estuarine Bioassessments** VAP-E22E-02 (10126)

> In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines. The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river."

Impairment Specific Comments and/or Impairment Specific VA Category

Sources: Source Unknown

Final 2006 IR Page 900 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: Rappahannock River TMDL Group ID: 10126 VAP-E23E\_RPP03A00 Rappahannock River ESSEX CO The Rappahannock River from the VDH shellfish condemnation 068A RICHMOND CO downstream to Sharps/0.7mi DS of Mark Haven Beach. Incorporates previous segment VAP-E24E RPP01A98 and extended. **RPPMH** VA Overall AU Category: 5A **Impairment** Use 20.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 10126 Aquatic Life **Estuarine Bioassessments** 2006 2018 VAP-E22E-02 (10126) In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river. Sources: Source Unknown VAP-E24E RPP01C06 Rappahannock River RICHMOND CO The Rappahannock River within the VDH shellfish condemnation 025-071A, 12/22/2004 **RPPMH** VA Overall AU Category: **Impairment** Use 0.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 10126 2018 Aquatic Life **Estuarine Bioassessments** 2006 VAP-E22E-02 (10126) In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines. The source of the estuarine bioassessment impairment is considered unknown, but is believed to

Final 2006 IR Page 901 of 2342

Sources: Source Unknown

be caused by low dissolved oxygen in the bottom waters of the river.

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River

TMDL Group ID:

10126

VAP-E24E\_RPP02B06 Rappahannock River ESSEX CO The Rappahannock River as described in VDH SFC 028-M271, 4/1/1995

RICHMOND CO

**RPPMH** 

VA Overall AU Category:

Use **Impairment** 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2006 2018 VAP-E22E-02 (10126) **Estuarine Bioassessments** 10126 Aquatic Life

> In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river.

Sources: Source Unknown

VAP-E25E RPP01A02 Rappahannock River

**ESSEX CO** RICHMOND CO The mainstem of the Rappahannock River from Sharps/0.7 mi DS of Mark Haven Beach to the WQS saltwater boundary at Buoy 11 near Morattico

Size adjusted in 2006

**RPPMH** 

VA Overall AU Category:

Impairment Use

12.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Aquatic Life **Estuarine Bioassessments** 10126 2006 2018 VAP-E22E-02 (10126)

> In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source

> of the estuarine bioassessment impairment is considered unknown, but is believed to

Impairment Specific Comments and/or Impairment Specific VA Category

be caused by low dissolved oxygen in the bottom waters of the river.

Sources: Source Unknown

Final 2006 IR Page 902 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: Rappahannock River TMDL Group ID: 10126 VAP-E25E\_RPP02A02 Rappahannock River LANCASTER CO The mainstem of the Rappahannock River from Buoy 11 near Morattico MIDDLESEX CO downstream to the mouth, excluding area in SFC 051A. Multiple Rappahannock segments merged together in 2006 **RPPMH** VA Overall AU Category: **Impairment** Use 66.80 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life **Estuarine Bioassessments** 10126 2006 2018 VAP-E22E-02 (10126) In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river. Sources: Source Unknown VAP-E25E RPP03A06 Rappahannock River RICHMOND CO Described in VDH SFC 024-M192, 4/1/1995 **RPPMH** VA Overall AU Category: Impairment 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) Use TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life **Estuarine Bioassessments** 10126 2006 2018 VAP-E22E-02 (10126) In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river.

Final 2006 IR Page 903 of 2342

Sources: Source Unknown

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River

TMDL Group ID:

10126

VAP-E26E\_RPP02A00 Rappahannock River MIDDLESEX CO The Rappahannock River in the area delineated in VDH shellfish

condemnation 051A.

Size corrected in 2006 cycle.

**RPPMH** 

VA Overall AU Category:

**Impairment** Use

0.13 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

10126 Aquatic Life **Estuarine Bioassessments** 2006 2018 VAP-E22E-02 (10126)

> In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river.

Sources: Source Unknown

VAP-E26E RPP03A00 Rappahannock River

MIDDLESEX CO

The Rappahannock River in the area delineated in VDH shellfish

condemnation 051D, 9/10/1997.

VA Overall AU Category:

Use

Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Estuarine Bioassessments** 10126 2006 2018

VAP-E22E-02 (10126)

**RPPMH** 

In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river.

Sources: Source Unknown

Final 2006 IR Page 904 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River Basin	Rap	pahann	ock.	River	Basin
--------------------------	-----	--------	------	-------	-------

TMDL Watershed Name: Rappahannock River

TMDL Group ID:

10126

VAP-E26E\_RPP04A00 Rappahannock River MIDDLESEX CO VDH Shellfish Condemnation 051B, 9/10/1997

Sq. mileage adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category:

Use

Impairment

0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Estuarine Bioassessments** 10126 2006 2018 VAP-E22E-02 (10126)

> In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river.

Sources: Source Unknown

VAP-E26E\_RPP05A00 Rappahannock River MIDDLESEX CO The area delineated in VDH shellfish condemnation 051E, 9/10/1997

RPPMH.

VA Overall AU Category: 5A

Use

**Impairment** 

0.14 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Estuarine Bioassessments** 10126 2006 2018 VAP-E22E-02 (10126)

In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river.

Sources: Source Unknown

Final 2006 IR Page 905 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Rappahannock River

TMDL Group ID: 10126

VAP-E26E\_RPP07A02 Rappahannock River LANCASTER CO As delineated in VDH-DSS SFC 053A, 9/16/1993

RPPMH.

VA Overall AU Category: **5A** 

Use Impair

Impairment 0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Estuarine Bioassessments 10126 2006 2018 VAP-E22E-02 (10126)

In 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen and the benthic impairment was treated as a confirmation of the impairment. The mainstem remains impaired for dissolved oxygen in the 2006 cycle, however the segment is now also 303(d) listed for estuarine bioassessments based on the EPA independent application guidelines . The source of the estuarine bioassessment impairment is considered unknown, but is believed to be caused by low dissolved oxygen in the bottom waters of the river.

Sources: Source Unknown

TMDL Watershed Name: Rappahannock River and Totuskey Creek

TMDL Group ID: 01053

VAP-E24E RPP01C06 Rappahannock River RICHMOND CO The Rappahannock River within the VDH shellfish condemnation 025-071A,

12/22/2004

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing **Fecal Coliform** 01053 **2006 2010** VAP-E24E-06/VAP-E24E-02

Previous condemnations included Totuskey and Richardson Creeks. In 2004, the segment was shortened and the creeks were separated. However, in 2006 the segments were both recombined under 025-071A, 12/22/2004 and extended into the

Rappahannock (see VAP-E24E-06)

Sources: Source Unknown

Final 2006 IR Page 906 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Rappahannock River and Totuskey Creek

TMDL Group ID: 01053

VAP-E24E\_TOT02A00 Totuskey Creek RICHMOND CO Downstream of VDH shellfish condemnation 025-071B, 12/22/2004 (within

025-071A, 12/22/2004).

RPPMH

VA Overall AU Category: 5A

Use Impairment 0.75 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing **Fecal Coliform** 01053 **1998 2010** VAP-E24E-01

Portion of VDH condemnation 025-071A, 12/22/2004

Previous condemnations included Totuskey and Richardson Creeks. In 2004, the segment was shortened and the creeks were separated. However, in 2006 the segments were both recombined under 025-071A, 12/22/2004 and extended into the

Rappahannock (see VAP-E24E-06)

Sources: Municipal Point Source Discharges

Source Unknown

Final 2006 IR Page 907 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E22E\_RPP05A02 Rappahannock River

ESSEX CO RICHMOND CO The oligohaline/mesohaline boundary at river mile 48.51 downstream to the upstream limit of VDH shellfish condemnation area 068A in E23.

2006: incorporates old segments VAP-E22E\_RPP06A02 & VAP-E23E\_RPP01A00 & extended

**RPPMH** 

VA Overall AU Category: 5

Use Impairmer

Impairment 6.95 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2004 2010 VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek . In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle. Also, applicable areas failed the deep water and deep channel applicable dissolved oxygen criteria in 2006.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved Life

01776 **2004 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Final 2006 IR Page 908 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

Sources: Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

VAP-E22E\_ZZZ02A06 Unsegmented estuaries in E22 ESSEX CO Unsegmented portion of watershed.
WESTMORELAND CO

RPPMH

VA Overall AU Category: **5A** 

Use Impairme

Impairment 0.04 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 909 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E23E\_CAT01A02 Cat Point Creek RICHMOND CO The tidal portion of Cat Point Creek.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 1.43 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 910 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E23E\_HOK01A98 Hoskins Creek From the Town of Tappahannock STP downstream to the

mouth at the Rappahannock River.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Mullicipal Folin Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 911 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappak	hannock	x River	Basin
--------	---------	---------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E23E\_LIE01A98 Little Carter Creek, Jugs Creek RICHMOND CO The segment boundaries are defined in VDH shellfish condemnation 068B,

3/6/2002.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.32 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

ividificipal Foliit Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 912 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E23E\_PIS02A00 Piscataway Creek ESSEX CO The estuarine portion of Piscataway Creek.

**RPPMH** 

the 2006 cycle.

VA Overall AU Category: 5A

Use Impairment 0.71 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 913 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E23E\_RPP02A98 Rappahannock River ESSEX CO Mainstem Rappahannock as described in VDH shellfish condemnation

RICHMOND CO 068A, 3/26/2004.

Segment extended in 2006

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 5.48 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2004 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

The mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment

was attributed to low oxygen.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2004 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

The mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment

was attributed to low oxygen.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 914 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E23E\_RPP03A00 Rappahannock River

ESSEX CO RICHMOND CO The Rappahannock River from the VDH shellfish condemnation 068A downstream to Sharps/0.7mi DS of Mark Haven Beach. Incorporates previous segment VAP-E24E RPP01A98 and extended.

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 20.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2004 2010 VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2004 2010 VAP-E22E-01 Life

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge

Final 2006 IR Page 915 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name:

Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

Sources: Internal Nutrient Recycling

Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

VAP-E23E\_ZZZ01A00

**Unsegmented estuaries in E23** 

**ESSEX CO** RICHMOND CO Unsegmented portion

**RPPMH** 

VA Overall AU Category:

Impairment Use

0.00 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Life

Oxygen, Dissolved

01776

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 916 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E23E\_ZZZ01A06 Unsegmented estuaries in E23 ESSEX CO Unsegmented portion within 068B & 068C, 3/26/2004

RICHMOND CO

RPPMH

VA Overall AU Category: **5A** 

Use Impairment 0.21 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 917 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E23E\_ZZZ02A06 Unsegmented estuaries in E23 ESSEX CO Unsegmented portion within SFC 068A, 3/26/2004

RICHMOND CO

RPPMH

VA Overall AU Category: 5A

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life Cxygen, Dissol

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 918 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E24E\_RIC01A04 Richardson Creek RICHMOND CO Tidal limit to mouth (within SFC 025-071A, 12/22/2004)

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.15 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 919 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E24E\_RPP01B98 Garrett's Marina ESSEX CO The segment boundaries are delineated in VDH shellfish condemnation

181A, 11/6/1995.

RPPMH

VA Overall AU Category: 5A

Use Impairment 0.00 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 920 of 2342

**Assessment Assessment Unit Description** City / County **Waterbody Name Unit ID** 

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E24E\_RPP01C06 Rappahannock River RICHMOND CO The Rappahannock River within the VDH shellfish condemnation 025-071A,

12/22/2004

**RPPMH** 

VA Overall AU Category:

Use

**Impairment** 

0.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2004 2010 VAP-E22E-01

> The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic 01776 Oxygen, Dissolved 2004 2010

Life

VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge

Final 2006 IR Page 921 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

#### Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

Sources: Internal Nutrient Recycling

Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 922 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

Oxygen, Dissolved

VAP-E24E\_RPP02B06 Rappahannock River

ESSEX CO RICHMOND CO The Rappahannock River as described in VDH SFC 028-M271, 4/1/1995

**RPPMH** 

VA Overall AU Category: 5A

Aquatic Life

Use

Impairment

nt 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

2004

01776

2010

Impairment Specific Comments and/or Impairment Specific VA Category

VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic

Oxygen, Dissolved

01776

2004

2010

VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling

Final 2006 IR Page 923 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

Sources: Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

**Totuskey Creek** RICHMOND CO VAP-E24E\_TOT01A00 The segment boundary is delineated in VDH condemnation 071B,

12/22/2004.

Sq. mileage adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category:

Impairment Use

0.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Aquatic Life Oxygen, Dissolved 01776 2010 VAP-E22E-01 2006

The mesohaline portion of the Rappahannock failed the open water summer dissolved

Impairment Specific Comments and/or Impairment Specific VA Category

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic

Life

Oxygen, Dissolved

01776

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 924 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E24E\_TOT02A00 Totuskey Creek RICHMOND CO Downstream of VDH shellfish condemnation 025-071B, 12/22/2004 (within

025-071A, 12/22/2004).

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.75 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Mullicipal Folit Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Municipal Folint Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 925 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basir	1
--------------	-------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E25E\_DEE01A04 Deep Creek LANCASTER CO Described in VDH shellfish condemnation 023-121B, 9/23/2004.

In 2002, Deep Creek was split into 3 segments. In 2004, the condemnation was expanded and the segments were joined. Size adjusted in 2006.

**RPPMH** 

VA Overall AU Category: 54

Use Impairment 0.22 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 926 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E25E\_FAM01A98 Farnham Creek RICHMOND CO The segment boundaries are delineated in VDH shellfish condemnation

070, 10/17/2000

Sq. mileage adjusted in 2006 although area did not change

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.41 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 927 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_GEE01A98 Greenvale Creek LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation

094A, 2/5/2003.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.08 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 928 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_GEE02A06 Greenvale Creek LANCASTER CO Described in VDH SFC 094B, 2/5/2003

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer

dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 929 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_HRY01A06 Harry George Creek MIDDLESEX CO Designated in VDH SFC 202B, 9/3/2003

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.09 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 930 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River 1	Basin
----------------------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

VAP-E25E\_LAN01A98 **Lancaster Creek** LANCASTER CO The segment boundaries are delineated in VDH SFC 120B, 9/23/2004.

RICHMOND CO

Size reduced in 2006 cycle.

**RPPMH** 

VA Overall AU Category:

Impairment Use

0.46 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic 01776 Oxygen, Dissolved 2006 2010

Life

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 931 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E25E\_LAN02A02 Lancaster Creek LANCASTER CO The mouth of Lancaster Creek downstream of VDH SFC 120B, 9/23/2004,

RICHMOND CO not otherwise segmented.

Size increased in 2006 cycle.

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 1.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 932 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_LAN03A06 Lancaster Creek RICHMOND CO Described in VDH SFC 023-120M1, 9/23/2004

Size increased in 2006 cycle.

**RPPMH** 

VA Overall AU Category: 54

Use Impairment 0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life Oxygen, Dissolved 01770 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 933 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_LGG01A98 Lagrange Creek MIDDLESEX CO As described in VDH SFC 127, 6/11/1996.

**RPPMH** 

VA Overall AU Category: 5D

Use Impairment 0.60 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life Cxygen, Dissolved

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 934 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_LGG02A06 Lagrange Creek MIDDLESEX CO As described in VDH SFC 127, 2/25/2004, not otherwise segmented.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.60 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 935 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_MAO01A00 Masons Mill Swamp MIDDLESEX CO Tidal Masons Mill Swamp watershed - expanded in 2006.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.17 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 936 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_MTT01A00 Morattico Creek RICHMOND CO The segment is delineated in VDH SFC 023-120A, 9/23/2004

Expanded in 2006 and incorporates previous segment MTT02A00

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.33 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life Cxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 937 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E25E\_MUB01A02 Mulberry Creek LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation 023-

021A, 9/23/2004

Size reduced in 2006

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.27 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen
Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharges

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 938 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E25E\_MUB02A06 Mulberry Creek LANCASTER CO Downstream of VDH shellfish condemnation 023-021A, 9/23/2004

Size reduced in 2006

**RPPMH** 

VA Overall AU Category: 54

Use Impairment 0.22 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life Cxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 939 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_MUC01A04 Mud Creek MIDDLESEX CO Described in VDH SFC 027-090A, 11/15/2004

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.19 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2004 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer

dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2004 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 940 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_PAY01A02 Paynes Creek LANCASTER CO As delineated in VDH-DSS SFC 114, 4/27/1989.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.04 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 941 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappal	hannock	k River	Basin
--------	---------	---------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 01776

VAP-E25E\_PRR01A02 **Parrotts Creek** MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation 027-

090B, 11/15/2004.

**RPPMH** 

VA Overall AU Category: 5D

> Use **Impairment** 0.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2006 2010 VAP-E22E-01 Aquatic Life Oxygen, Dissolved 01776

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic 01776 Oxygen, Dissolved 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 942 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_ROS01A00 Robinson Creek MIDDLESEX CO Boundaries delineated in VDH shellfish condemnation 177, 5/28/1997.

**RPPMH** 

VA Overall AU Category: 5D

Use Impairment 0.18 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 943 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E25E\_ROS02A04 Robinson Creek MIDDLESEX CO Described in VDH Shellfish Condemnation 177, 2/25/2004, not otherwise

segmented

Extended in 2006 cycle

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.29 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 944 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E25E\_RPP01A02 Rappahannock River

ESSEX CO RICHMOND CO The mainstem of the Rappahannock River from Sharps/0.7 mi DS of Mark Haven Beach to the WQS saltwater boundary at Buoy 11 near Morattico

Size adjusted in 2006

**RPPMH** 

VA Overall AU Category: 5.

Use Impairment 12.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **1998 2010** VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster

Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle. Also, applicable areas failed the deep water and deep channel applicable dissolved oxygen criteria in 2006.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Deep-Water Aquatic Oxygen, Dissolved 01776 1998 2010 VAP-E22E-01

Life

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle. Also, applicable areas failed the deep water and deep channel applicable dissolved oxygen criteria in 2006.

Sources: Agriculture

Final 2006 IR Page 945 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

#### Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

Sources: Atmospheric Deposition - Nitrogen

Industrial Point Source Discharge

Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

2010

Open-Water Aquatic Life Oxygen, Dissolved

01776

1998

V

VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle. Also, applicable areas failed the deep water and deep channel applicable dissolved oxygen criteria in 2006.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 946 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E25E\_RPP01C98 Rappahannock River - Mark Haven Beach ESSEX CO The segment boundaries are delineated in VDH shellfish condemnation 026-

181B, 11/6/1996.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 947 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E25E\_RPP02A02 Rappahannock River

LANCASTER CO MIDDLESEX CO The mainstem of the Rappahannock River from Buoy 11 near Morattico downstream to the mouth, excluding area in SFC 051A.

Multiple Rappahannock segments merged together in 2006

**RPPMH** 

VA Overall AU Category: 5/

Use Impairment 66.80 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **1998 2010** VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle. Also, applicable areas failed the deep water applicable dissolved oxygen criteria in 2006.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Deep-Water Aquatic Oxygen, Dissolved 01776 1998 2010 VAP-E22E-01

Life

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle. Also, applicable areas failed the deep water and deep channel applicable dissolved oxygen criteria in 2006.

Sources: Agriculture

Final 2006 IR Page 948 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

#### Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

Sources: Atmospheric Deposition - Nitrogen

Industrial Point Source Discharge

Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 1998 2010 VAP-E22E-01

Life

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle. Also, applicable areas failed the deep water and deep channel applicable dissolved oxygen criteria in 2006.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 949 of 2342

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** 

Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E25E\_RPP03A06 Rappahannock River RICHMOND CO Described in VDH SFC 024-M192, 4/1/1995

**RPPMH** 

VA Overall AU Category: 5A

> Use **Impairment** 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2004 2010 VAP-E22E-01 Oxygen, Dissolved 01776 Aquatic Life

> The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2004 2010 VAP-E22E-01

Life

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was

originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling

Final 2006 IR Page 950 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River	Basin
--------------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

Sources: Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

**Urbanna Creek** MIDDLESEX CO VAP-E25E\_URB01A00 As described in VDH-DSS SFC 42B, 9/17/1993.

Sq. mileage adjusted in 2006

**RPPMH** 

VA Overall AU Category:

Aquatic Life

Use

**Impairment** 

Oxygen, Dissolved

0.22 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Impairment Specific Comments and/or Impairment Specific VA Category

Sources: Agriculture

01776

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved

Life

01776

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 951 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E25E\_URB02A00 Urbanna Creek MIDDLESEX CO As delineated in VDH shellfish condemnation 042A, 9/17/1993.

Sq. mileage adjusted in 2006

**RPPMH** 

VA Overall AU Category: 51

Use Impairment 0.24 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 952 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

MIDDLEOEV.CO

VAP-E25E\_WEE01A00 Weeks Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

202, 10/8/1996.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.12 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

vidilicipal Foliit Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Mullicipal Foliit Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 953 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappah	iannock	River	Basin
--------	---------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

VAP-E25E\_WEE02A04 **Weeks Creek** MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

202A, 9/3/2003, not otherwise delineated.

**RPPMH** 

VA Overall AU Category: 5A

> Use **Impairment** 0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2006 2010 VAP-E22E-01 Oxygen, Dissolved 01776 Aquatic Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 954 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

VAP-E25E\_XDV01A02 **Beach Creek** LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation

116A, 12/27/2004.

Expanded in 2006

**RPPMH** 

VA Overall AU Category:

**Impairment** Use 0.11 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

01776 Aquatic Life Oxygen, Dissolved 2006 2010 VAP-E22E-01

> The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle. Also, applicable areas failed the deep water

and deep channel dissolved oxygen criteria in 2006.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Oxygen, Dissolved Deep-Water Aquatic 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the deep water dissolved oxygen

criteria in 2006.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Final 2006 IR Page 955 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River Basin
--------------	-------------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

Sources: Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

VAP-E25E\_ZZZ01A00 **Unsegmented estuaries in E25 ESSEX CO** Unsegmented portion of watershed

RICHMOND CO

VA Overall AU Category:

**Impairment** 0.24 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life 01776 VAP-E22E-01 Oxygen, Dissolved 2006 2010

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

**RPPMH** 

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic 01776

Oxygen, Dissolved 2006 2010 VAP-E22E-01 Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 956 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E26E\_BPC01A98 Rappahannock River: Bush Park Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

109, 4/27/1989.

Size adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category: 54

Use Impairment 0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 957 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_BRD01A00 Broad Creek MIDDLESEX CO The boundaries are defined in VDH shellfish condemnation 038B,

12/30/2004.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.08 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 958 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_BRD02A00 Broad Creek MIDDLESEX CO The boundaries are defined in VDH shellfish condemnation 038A,

12/30/2004.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 959 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E26E\_BRD03A00 Broad Creek MIDDLESEX CO The boundaries are defined in VDH shellfish condemnation 033-038C,

12/30/2004.

Sq. mileage adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category: 54

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 960 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River Basin	
----------------	-------------	--

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_BRD04A00 Broad Creek MIDDLESEX CO Described in VDH-DSS condemnation 033-038M1, 12/3/2004

Size reduced in 2006

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life Cxygen, Dissolved 01776 2006 2010

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 961 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E26E\_CEB01A00 Eastern Branch Carter Creek LANCASTER CO The boundaries are delineated in VDH shellfish condemnation 041A,

12/17/2004.

Segment was expanded in 2006 cycle and now incorporates CEB02A00

(Bridge Cove), which was previously open.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.25 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Im

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved

Life

01776 **2006 2010** VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 962 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E26E\_CTR01A00 Carter Creek LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation

041D, 12/17/2004.

Size adjusted in 2006

**RPPMH** 

VA Overall AU Category: 54

Use Impairment 0.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 and a

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 963 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E26E\_CTR02A00 Carter Creek LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation

041B, 12/17/2004.

Size adjusted in 2006

**RPPMH** 

VA Overall AU Category: 54

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 964 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappah	iannock	River	Basin
--------	---------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

VAP-E26E\_CTR03A00 Carter Creek, Eastern Branch Carter Creek LANCASTER CO As described in VDH-DSS SFC 020-041M1, 12/17/2006

Segment was shortened in 2006 cycle.

**RPPMH** 

VA Overall AU Category:

Use

Impairment 0.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

2010 VAP-E22E-01 Open-Water Aquatic Oxygen, Dissolved

Life

2006 01776

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 965 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_CTR04A02 Carter Cove LANCASTER CO As described in VDH-DSS SFC 020-041C, 12/17/2004

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **2006 2010** VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life Oxygen, Di

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 966 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River B
----------------------

5A

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 01776

VAP-E26E\_LOL01A02 **Locklies Creek** MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

102A, 2/6/2004.

**RPPMH** VA Overall AU Category:

Use **Impairment** 0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2006 2010 VAP-E22E-01 Oxygen, Dissolved 01776 Aquatic Life

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 967 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River B	asin
----------------------	------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

VAP-E26E\_LOL02A06 **Locklies Creek** MIDDLESEX CO Described in VDH-DSS SFC 031-102B, 2/6/2004

**RPPMH** 

VA Overall AU Category:

Use

**Impairment** 0.09 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved

Life

01776 2006 2010 VAP-E22E-01

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 968 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E26E\_MEA01A00 Meachim Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

179A, 11/17/2004.

Expanded in 2006

**RPPMH** 

VA Overall AU Category: 5D

Use Impairment 0.08 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Upen-water Aquatic Uxygen, Dissolved 01776 2006 2010 VAP-E22E-01 Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 969 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River Basi	n
--------------	------------	---

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

VAP-E26E\_MEA01A06 **Meachim Creek** MIDDLESEX CO Described in VDH SFC 030-179A, 12/9/1996, not otherwise segmented.

**RPPMH** 

VA Overall AU Category:

**Impairment** Use

0.05 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 970 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_MEA01B00 Meachim Creek MIDDLESEX CO The segment is delineated in VDH shellfish condemnation 179B,

11/17/2004.

**RPPMH** 

VA Overall AU Category: 5D

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life
The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 971 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_MEA01C06 Meachim Creek MIDDLESEX CO Described in VDH SFC 030-179M1, 11/17/2004.

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 972 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River B	asin
----------------------	------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

VAP-E26E\_MEA02A00 **Meachim Creek** MIDDLESEX CO Downstream of VDH SFC 030-179A, 11/17/2004, not otherwise segmented.

**RPPMH** 

VA Overall AU Category:

Use

**Impairment** 0.14 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved

Life

01776 2006 2010 VAP-E22E-01

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 973 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_MLL01A98 Mill Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

103, 12/10/1991

RPPMH.

VA Overall AU Category: 5A

Use Impairment 0.12 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life
The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 974 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River	Basin
--------------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 01776

VAP-E26E\_MLL02A06 Mill Creek MIDDLESEX CO Downstream of VDH shellfish condemnation 103, 12/10/1991

RPPMH.

VA Overall AU Category:

**Impairment** 0.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 975 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_MOS01A00 Mosquito Creek LANCASTER CO The boundaries are delineated in VDH shellfish condemnation 203,

11/6/2003.

Expanded in 2006 cycle

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

of the Rappahannock

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 976 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_RPP02A00 Rappahannock River MIDDLESEX CO The Rappahannock River in the area delineated in VDH shellfish

condemnation 051A.

Size corrected in 2006 cycle.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.13 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **1998 2010** VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 977 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

TMDL Watershed Name:	Rappahannock River Mesohaline Embayments								
TMDL Group ID:	01776								
oen-Water Aquatic Life	Oxygen, Dissolved	_	01776	1998	2010	VAP-E22E-01			
						The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence wi Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancas Creek (Morattico), which is further downstream.			
						The CB standards were implemented during the 2006 cycle. The mesohaline poof the Rappahannock failed the open water summer dissolved oxygen criteria an SAV acreage standards during the 2006 cycle.			
						In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indic benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.			
		Sources:	Agriculture						
			Atmospheric Depos	· ·					
			Industrial Point Sou Internal Nutrient Re	0					
			Loss of Riparian Ha	, 0					
			Municipal Point Sou						
			Sources Outside St	ate Jurisdiction or E	Borders				

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Page 978 of 2342 Final 2006 IR

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_RPP03A00 Rappahannock River MIDDLESEX CO The Rappahannock River in the area delineated in VDH shellfish

condemnation 051D, 9/10/1997.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **1998 2010** VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 979 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

ppahannock River Basin
------------------------

TMDL Watershed Name:	Rappahannock River Mesohaline Embayments									
TMDL Group ID:	01776	1								
Open-Water Aquatic Life	Oxygen, Dissolved	_	01776	1998	2010	VAP-E22E-01				
LIIG						The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence wit Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancas Creek (Morattico), which is further downstream.				
						The CB standards were implemented during the 2006 cycle. The mesohaline por of the Rappahannock failed the open water summer dissolved oxygen criteria and SAV acreage standards during the 2006 cycle.				
						In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indiction benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.				
		Sources: Agri	iculture							
		Atm	ospheric Depos	ition - Nitrogen						
		Indu	ustrial Point Sou	rce Discharge						
			rnal Nutrient Re	, 0						
			s of Riparian Ha							
			nicipal Point Sou	ırce Discharges ate Jurisdiction or l						

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Page 980 of 2342 Final 2006 IR

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_RPP04A00 Rappahannock River MIDDLESEX CO VDH Shellfish Condemnation 051B, 9/10/1997

Sq. mileage adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category: 5.

Use Impairment 0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Oxygen, Dissolved** 01776 **1998 2010** VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deep water and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 981 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

ppahannock River Basin
------------------------

TMDL Watershed Name:	Rappahannock River Mesohaline Embayments								
TMDL Group ID:	01776								
pen-Water Aquatic Life	Oxygen, Dissolved	_	01776	1998	2010	VAP-E22E-01			
						The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancast Creek (Morattico), which is further downstream.			
						The CB standards were implemented during the 2006 cycle. The mesohaline por of the Rappahannock failed the open water summer dissolved oxygen criteria and SAV acreage standards during the 2006 cycle.			
						In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicate benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.			
		Sources:	Agriculture						
			Atmospheric Depos	J					
			Industrial Point Sou	•					
			Internal Nutrient Re Loss of Riparian Ha	, 0					
			Municipal Point Sou						
			Sources Outside St	J	Borders				

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Page 982 of 2342 Final 2006 IR

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** 

Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E26E\_RPP05A00 Rappahannock River MIDDLESEX CO The area delineated in VDH shellfish condemnation 051E, 9/10/1997

RPPMH.

VA Overall AU Category:

Use

**Impairment** 

0.14 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

2010

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776

1998

VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Life

Oxygen, Dissolved

01776

1998

2010

VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Final 2006 IR Page 983 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

#### Rappahannock River Basin

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

01776

TMDL Group ID:

Sources: Atmospheric Deposition - Nitrogen

Industrial Point Source Discharge

Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 984 of 2342

**Assessment Unit ID** 

**Waterbody Name** 

City / County

**Assessment Unit Description** 

Rappahannock River Basin

TMDL Watershed Name:

Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

VAP-E26E\_RPP07A02

Aquatic Life

Rappahannock River

LANCASTER CO

As delineated in VDH-DSS SFC 053A, 9/16/1993

RPPMH.

VA Overall AU Category:

Use

**Impairment** 

Oxygen, Dissolved

0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

01776

1998

2010

VAP-E22E-01

The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

Impairment Specific Comments and/or Impairment Specific VA Category

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle. Also, applicable areas failed the deep water and deep channel applicable dissolved oxygen criteria in 2006.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 985 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

TMDL Watershed Name:		Rappahannock River Mesohaline Embayments					
TMDL Group ID:	01776						
eep-Water Aquatic Life	Oxygen, Dissolved		01776	1998	2010	VAP-E22E-01	
						The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence witl Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancas Creek (Morattico), which is further downstream.	
						The CB standards were implemented during the 2006 cycle. The mesohaline por of the Rappahannock failed the open water summer dissolved oxygen criteria dur the 2006 cycle. Also, applicable areas failed the deep water and deep channel applicable dissolved oxygen criteria.	
						In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indic benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.	
		Sources:	Agriculture				
			Atmospheric Depos	J			
			Industrial Point Sou	Ü			
			Internal Nutrient Re	, ,			
			Loss of Riparian Ha Municipal Point Sou				
			Sources Outside St	•	Rorders		
						ion of Stormwater, SSO or CSO)	
pen-Water Aquatic	Oxygen, Dissolved		01776	1998	2010	VAP-E22E-01	
Life						The mainstem of the Rappahannock River from Myrtle Swamp to its mouth was	

originally listed in 1998 by DEQ due to dissolved oxygen violations and nutrient overenrichment. The EPA extended the segment upstream to the confluence with Totuskey Creek. In the 2004 cycle dissolved oxygen violations were noted in deepwater and deep channel stations downstream of the confluence with Lancaster Creek (Morattico), which is further downstream.

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the SAV acreage standards during the 2006 cycle. Also, applicable areas failed the deep water and deep channel applicable dissolved oxygen criteria in 2006.

In addition, in 2004 the mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment was attributed to low oxygen. The mainstem remains impaired in the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Final 2006 IR Page 986 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

01776

Sources: Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

VAP-E26E\_STE01A98 Sturgeon Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation 104.

Sq. mileage adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category:

Use

Impairment

0.09 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Life

Oxygen, Dissolved

01776

2006

2010

VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 987 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_WHS01B00 Whiting Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

051C, 9/10/1997

AU name fixed and sq. mileage adjusted in 2006, although area did not

change

**RPPMH** 

VA Overall AU Category: **5D** 

Use Impairment 0.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 988 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River	Basin
----------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 01776

VAP-E26E\_XEV01A02 Windmill Point Yacht Harbor LANCASTER CO As delineated in VDH-DSS SFC 018-053B, 9/16/1993

AU name corrected in 2006 (prev. RPP07B02)

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved  $% \left\{ 1,2,...,n\right\}$ 

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

Life Oxygen, Dissolved 01776 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 989 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River B	asin
----------------------	------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

01776

VAP-E26E\_ZZZ01A00 **Unsegmented estuaries in E26** LANCASTER CO Unsegmented portion of watershed

MIDDLESEX CO

**RPPMH** 

VA Overall AU Category: 5A

> Use **Impairment** 1.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2006 2010 VAP-E22E-01 Oxygen, Dissolved 01776 Aquatic Life

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Open-Water Aquatic Oxygen, Dissolved 01776 2006 2010

Life

VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria during

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 990 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

10071

VAP-E22E\_RPP05A02 Rappahannock River ESSEX CO The oligonaline/mesohaline boundary at river mile 48.51 downstream to the

RICHMOND CO upstream limit of VDH shellfish condemnation area 068A in E23.

2006: incorporates old segments VAP-E22E\_RPP06A02

& VAP-E23E\_RPP01A00 & extended

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 6.95 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment)

Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 991 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappal	hannock	River	Basin
--------	---------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

10071

VAP-E22E\_ZZZ02A06 **Unsegmented estuaries in E22 ESSEX CO** Unsegmented portion of watershed.

WESTMORELAND CO

**RPPMH** 

VA Overall AU Category: 5A

Use

**Impairment** 

0.04 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 

10071

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 992 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E23E\_CAT01A02 Cat Point Creek RICHMOND CO The tidal portion of Cat Point Creek.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 1.43 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 993 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E23E\_HOK01A98 Hoskins Creek From the Town of Tappahannock STP downstream to the

mouth at the Rappahannock River.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 994 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E23E\_LIE01A98 Little Carter Creek, Jugs Creek RICHMOND CO The segment boundaries are defined in VDH shellfish condemnation 068B,

3/6/2002.

**RPPMH** 

VA Overall AU Category: 5A
Use Impairment 0.32 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Aquatic Plants (Macrophytes)
Submerged Aquatic

Vegetation

10071 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 995 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River Basin	
----------------	-------------	--

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E23E\_PIS02A00 Piscataway Creek ESSEX CO The estuarine portion of Piscataway Creek.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.71 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 996 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E23E\_RPP02A98 Rappahannock River ESSEX CO Mainstem Rappahannock as described in VDH shellfish condemnation

RICHMOND CO 068A, 3/26/2004.

Segment extended in 2006

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 5.48 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the open water summer dissolved

oxygen criteria and the SAV acreage standards during the 2006 cycle.

The mesohaline portion of the mainstem Rappahannock indicated benthic impairment based on the Chesapeake Bay Benthic Index of Biological Integrity. The impairment

The mesohaline portion of the Rappahannock failed the SAV acreage standards

was attributed to low oxygen.

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 997 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

10071

VAP-E23E\_RPP03A00 Rappahannock River

ESSEX CO RICHMOND CO The Rappahannock River from the VDH shellfish condemnation 068A downstream to Sharps/0.7mi DS of Mark Haven Beach. Incorporates

previous segment VAP-E24E RPP01A98 and extended.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment

20.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes)

10071 2006

2010

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes)

10071

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 998 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappah	iannock	River	Basin
--------	---------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

10071

VAP-E23E\_ZZZ01A00 **Unsegmented estuaries in E23** ESSEX CO Unsegmented portion

RICHMOND CO

**RPPMH** 

VA Overall AU Category: 5A

Use

**Impairment** 

0.00 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 

10071

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 999 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E23E\_ZZZ01A06 Unsegmented estuaries in E23 ESSEX CO Unsegmented portion within 068B & 068C, 3/26/2004

RICHMOND CO

RPPMH

VA Overall AU Category: 5A

Use Impairment 0.21 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The meschalin

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1000 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappah	iannock	River	Basin
--------	---------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

10071

VAP-E23E\_ZZZ02A06 **Unsegmented estuaries in E23** ESSEX CO Unsegmented portion within SFC 068A, 3/26/2004

RICHMOND CO

**RPPMH** 

VA Overall AU Category: 5A

Use

**Impairment** 

0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 

10071

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1001 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River	Basin
--------------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 10071

VAP-E24E\_RIC01A04 **Richardson Creek** RICHMOND CO Tidal limit to mouth (within SFC 025-071A, 12/22/2004)

**RPPMH** 

VA Overall AU Category:

**Impairment** 0.15 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Use

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

during the 2006 cycle.

The mesohaline portion of the Rappahannock failed the SAV acreage standards

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1002 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E24E\_RPP01B98 Garrett's Marina ESSEX CO The segment boundaries are delineated in VDH shellfish condemnation

181A, 11/6/1995.

**RPPMH** 

VA Overall AU Category: 5A
Use Impairment 0.00 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1003 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River B
----------------------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 10071

VAP-E24E\_RPP01C06 Rappahannock River RICHMOND CO The Rappahannock River within the VDH shellfish condemnation 025-071A,

12/22/2004

**RPPMH** 

VA Overall AU Category:

Impairment 0.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1004 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappah	iannock	River	Basin
--------	---------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 10071

VAP-E24E\_RPP02B06 Rappahannock River **ESSEX CO** The Rappahannock River as described in VDH SFC 028-M271, 4/1/1995

RICHMOND CO

**RPPMH** 

VA Overall AU Category:

Use **Impairment** 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2006 2010 VAP-E22E-01 **Aquatic Plants (Macrophytes)** 10071 Aquatic Life

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1005 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E24E\_TOT01A00 Totuskey Creek RICHMOND CO The segment boundary is delineated in VDH condemnation 071B,

12/22/2004.

Sq. mileage adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1006 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E24E\_TOT02A00 Totuskey Creek RICHMOND CO Downstream of VDH shellfish condemnation 025-071B, 12/22/2004 (within

025-071A, 12/22/2004).

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.75 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1007 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

10071

VAP-E25E\_DEE01A04 Deep Creek LANCASTER CO Described in VDH shellfish condemnation 023-121B, 9/23/2004.

In 2002, Deep Creek was split into 3 segments. In 2004, the condemnation was expanded and the segments were joined. Size adjusted in 2006.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.22 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1008 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

10071

VAP-E25E\_FAM01A98 **Farnham Creek** RICHMOND CO The segment boundaries are delineated in VDH shellfish condemnation

070, 10/17/2000

Sq. mileage adjusted in 2006 although area did not change

**RPPMH** 

VA Overall AU Category: 5A

Use

**Impairment** 

0.41 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

10071 Aquatic Life **Aquatic Plants (Macrophytes)** 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 

10071

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1009 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River Basin
--------------	-------------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 10071

VAP-E25E\_GEE01A98 **Greenvale Creek** LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation

094A, 2/5/2003.

**RPPMH** 

VA Overall AU Category: 5A Use **Impairment** 0.08 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2006 2010 VAP-E22E-01 Aquatic Life **Aquatic Plants (Macrophytes)** 10071

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1010 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_GEE02A06 Greenvale Creek LANCASTER CO Described in VDH SFC 094B, 2/5/2003

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The consider Pa

The mesohaline portion of the Rappahannock failed the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1011 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_HRY01A06 Harry George Creek MIDDLESEX CO Designated in VDH SFC 202B, 9/3/2003

**RPPMH** 

VA Overall AU Category: 5A

Vegetation

Use Impairment 0.09 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Aquatic Plants (Macrophytes) 10071 **2006 2010** VAP-E22E-01 Submerged Aquatic

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1012 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_LAN01A98 Lancaster Creek LANCASTER CO The segment boundaries are delineated in VDH SFC 120B, 9/23/2004.

RICHMOND CO

Size reduced in 2006 cycle.

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.46 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1013 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_LAN02A02 Lancaster Creek LANCASTER CO The mouth of Lancaster Creek downstream of VDH SFC 120B, 9/23/2004,

RICHMOND CO not otherwise segmented.

Size increased in 2006 cycle.

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 1.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 200

10071 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1014 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River Basin	
----------------	-------------	--

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_LAN03A06 Lancaster Creek RICHMOND CO Described in VDH SFC 023-120M1, 9/23/2004

Size increased in 2006 cycle.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1015 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_LGG01A98 Lagrange Creek MIDDLESEX CO As described in VDH SFC 127, 6/11/1996.

**RPPMH** 

VA Overall AU Category: 5D

Use Impairment 0.60 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The meachali

The mesohaline portion of the Rappahannock failed the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1016 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_LGG02A06 Lagrange Creek MIDDLESEX CO As described in VDH SFC 127, 2/25/2004, not otherwise segmented.

RPPMH

VA Overall AU Category: 5A

Vegetation

Use Impairment 0.60 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Aquatic Plants (Macrophytes) 10071 **2006 2010** VAP-E22E-01 Submerged Aquatic

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1017 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_MAO01A00 Masons Mill Swamp MIDDLESEX CO Tidal Masons Mill Swamp watershed - expanded in 2006.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.17 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1018 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 10071

VAP-E25E\_MTT01A00 **Morattico Creek** RICHMOND CO The segment is delineated in VDH SFC 023-120A, 9/23/2004

Expanded in 2006 and incorporates previous segment MTT02A00

**RPPMH** 

VA Overall AU Category:

Impairment 0.33 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1019 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

10071

VAP-E25E\_MUB01A02 Mulberry Creek LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation 023-

021A, 9/23/2004

Size reduced in 2006

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.27 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohal

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1020 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 10071

**Mulberry Creek** VAP-E25E\_MUB02A06 LANCASTER CO Downstream of VDH shellfish condemnation 023-021A, 9/23/2004

Size reduced in 2006

**RPPMH** 

VA Overall AU Category:

Impairment 0.22 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

> Sources: Agriculture Atmospheric Deposition - Nitrogen

> > Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1021 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_MUC01A04 Mud Creek MIDDLESEX CO Described in VDH SFC 027-090A, 11/15/2004

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.19 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1022 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_PAY01A02 Paynes Creek LANCASTER CO As delineated in VDH-DSS SFC 114, 4/27/1989.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.04 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1023 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_PRR01A02 Parrotts Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation 027-

090B, 11/15/2004.

**RPPMH** 

VA Overall AU Category: 5D

Use Impairment 0.16 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1024 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River Basi	n
--------------	------------	---

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

10071

VAP-E25E\_ROS01A00 **Robinson Creek** MIDDLESEX CO Boundaries delineated in VDH shellfish condemnation 177, 5/28/1997.

**RPPMH** 

VA Overall AU Category: 5D

Use

**Impairment** 

0.18 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 

10071

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1025 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

10071

VAP-E25E\_ROS02A04 Robinson Creek MIDDLESEX CO Described in VDH Shellfish Condemnation 177, 2/25/2004, not otherwise

segmented

Extended in 2006 cycle

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.29 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharge

Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1026 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River Basin	
----------------	-------------	--

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

10071

VAP-E25E\_RPP01A02 Rappahannock River ESSEX CO The mainstem of the Rappahannock River from Sharps/0.7 mi DS of Mark

RICHMOND CO Haven Beach to the WQS saltwater boundary at Buoy 11 near Morattico

Size adjusted in 2006

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 12.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1027 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappah	iannock	River	Basin
--------	---------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

10071

VAP-E25E\_RPP01C98 Rappahannock River - Mark Haven Beach **ESSEX CO** The segment boundaries are delineated in VDH shellfish condemnation 026-

181B, 11/6/1996.

**RPPMH** 

VA Overall AU Category: 5A

> Use **Impairment** 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2006 2010 VAP-E22E-01 **Aquatic Plants (Macrophytes)** 10071 Aquatic Life

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1028 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_RPP02A02 Rappahannock River LANCASTER CO The mainstem of the Rappahannock River from Buoy 11 near Morattico

MIDDLESEX CO downstream to the mouth, excluding area in SFC 051A.

Multiple Rappahannock segments merged together in 2006

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 66.80 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1029 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_RPP03A06 Rappahannock River RICHMOND CO Described in VDH SFC 024-M192, 4/1/1995

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010

\_\_\_\_\_\_

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1030 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_URB01A00 Urbanna Creek MIDDLESEX CO As described in VDH-DSS SFC 42B, 9/17/1993.

Sq. mileage adjusted in 2006

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.22 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1031 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River Basi	n
--------------	------------	---

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

10071

VAP-E25E\_URB02A00 **Urbanna Creek** MIDDLESEX CO As delineated in VDH shellfish condemnation 042A, 9/17/1993.

Sq. mileage adjusted in 2006

**RPPMH** 

VA Overall AU Category:

Use

Impairment

0.24 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 

10071

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1032 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_WEE01A00 Weeks Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

202, 10/8/1996.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.12 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1033 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock .	River Basin	
----------------	-------------	--

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 10071

VAP-E25E\_WEE02A04 **Weeks Creek** MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

202A, 9/3/2003, not otherwise delineated.

**RPPMH** 

VA Overall AU Category:

Use **Impairment** 0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2006 2010 VAP-E22E-01 **Aquatic Plants (Macrophytes)** 10071 Aquatic Life

The mesohaline portion of the Rappahannock failed the SAV acreage standards

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1034 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_XDV01A02 Beach Creek LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation

116A, 12/27/2004.

Expanded in 2006

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.11 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1035 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E25E\_ZZZ01A00 Unsegmented estuaries in E25 ESSEX CO Unsegmented portion of watershed

RICHMOND CO

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.24 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1036 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River Basin	
----------------	-------------	--

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_BPC01A98 Rappahannock River: Bush Park Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

109, 4/27/1989.

Size adjusted in 2006, although area did not change

of the Rappahannock failed the SAV acreage standards.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

The CB standards were implemented during the 2006 cycle. The mesohaline portion

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1037 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_BRD01A00 Broad Creek MIDDLESEX CO The boundaries are defined in VDH shellfish condemnation 038B,

12/30/2004.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.08 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1038 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River Basin	
----------------	-------------	--

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_BRD02A00 Broad Creek MIDDLESEX CO The boundaries are defined in VDH shellfish condemnation 038A,

12/30/2004.

RPPMH

VA Overall AU Category: 5A

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1039 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River	Basin
----------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_BRD03A00 Broad Creek MIDDLESEX CO The boundaries are defined in VDH shellfish condemnation 033-038C,

12/30/2004.

Sq. mileage adjusted in 2006, although area did not change

RPPMH

VA Overall AU Category: 5A

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling

Loss of Riparian Habitat

Municipal Point Source Discharges

Sediment Programming (Close Sediment)

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1040 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_BRD04A00 Broad Creek MIDDLESEX CO Described in VDH-DSS condemnation 033-038M1, 12/3/2004

Size reduced in 2006

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1041 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River	Basin
----------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_CEB01A00 Eastern Branch Carter Creek LANCASTER CO The boundaries are delineated in VDH shellfish condemnation 041A,

12/17/2004.

Segment was expanded in 2006 cycle and now incorporates CEB02A00

(Bridge Cove), which was previously open.

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.25 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1042 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_CTR01A00 Carter Creek LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation

041D, 12/17/2004.

Size adjusted in 2006

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1043 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_CTR02A00 Carter Creek LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation

041B, 12/17/2004.

Size adjusted in 2006

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture
Atmospheric Deposition - Nitrogen

. . Ola ara Ola dirana rata

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1044 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basii
--------------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_CTR03A00 Carter Creek, Eastern Branch Carter Creek LANCASTER CO As described in VDH-DSS SFC 020-041M1, 12/17/2006

Segment was shortened in 2006 cycle.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

Sources: Agriculture
Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge

Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1045 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_CTR04A02 Carter Cove LANCASTER CO As described in VDH-DSS SFC 020-041C, 12/17/2004

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1046 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_LOL01A02 Locklies Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

102A, 2/6/2004.

RPPMH

VA Overall AU Category: 5A

Use Impairment 0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharges

Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1047 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_LOL02A06 Locklies Creek MIDDLESEX CO Described in VDH-DSS SFC 031-102B, 2/6/2004

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.09 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1048 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_MEA01A00 Meachim Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

179A, 11/17/2004.

Expanded in 2006

RPPMH

VA Overall AU Category: 5D

Use Impairment 0.08 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the Submerged Aquatic Vegetation acreage criteria during

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture
Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1049 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_MEA01A06 Meachim Creek MIDDLESEX CO Described in VDH SFC 030-179A, 12/9/1996, not otherwise segmented.

**RPPMH** 

VA Overall AU Category: 5D

Use Impairment 0.05 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The OD stands

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1050 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_MEA01B00 Meachim Creek MIDDLESEX CO The segment is delineated in VDH shellfish condemnation 179B,

11/17/2004.

**RPPMH** 

VA Overall AU Category: 5D

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharges

Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1051 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_MEA01C06 Meachim Creek MIDDLESEX CO Described in VDH SFC 030-179M1, 11/17/2004.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CE

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1052 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappah	iannock	River	Basin
--------	---------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_MEA02A00 Meachim Creek MIDDLESEX CO Downstream of VDH SFC 030-179A, 11/17/2004, not otherwise segmented.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.14 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

The OD standards ....

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1053 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock .	River Basin	
----------------	-------------	--

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 10071

VAP-E26E\_MLL01A98 Mill Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

103, 12/10/1991

RPPMH.

VA Overall AU Category: Use **Impairment** 0.12 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

2006 2010 VAP-E22E-01 **Aquatic Plants (Macrophytes)** 10071 Aquatic Life

The CB standards were implemented during the 2006 cycle. The mesohaline portion

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Clean Sediments

Atmospheric Deposition - Nitrogen

Industrial Point Source Discharge

Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1054 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basi	n
--------------	------------	---

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_MLL02A06 Mill Creek MIDDLESEX CO Downstream of VDH shellfish condemnation 103, 12/10/1991

RPPMH.

VA Overall AU Category: 5A

Use Impairment 0.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1055 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

10071

VAP-E26E\_MOS01A00 Mosquito Creek LANCASTER CO The boundaries are delineated in VDH shellfish condemnation 203,

11/6/2003.

Expanded in 2006 cycle

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1056 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin	Rap	pahann	ock I	River	Basin
--------------------------	-----	--------	-------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_RPP02A00 Rappahannock River MIDDLESEX CO The Rappahannock River in the area delineated in VDH shellfish

condemnation 051A.

Size corrected in 2006 cycle.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.13 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1057 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B	asin
----------------------	------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_RPP03A00 Rappahannock River MIDDLESEX CO The Rappahannock River in the area delineated in VDH shellfish

condemnation 051D, 9/10/1997.

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.03 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1058 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River B
----------------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_RPP04A00 Rappahannock River MIDDLESEX CO VDH Shellfish Condemnation 051B, 9/10/1997

Sq. mileage adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category: 54

Use Impairment 0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation **Aquatic Plants (Macrophytes)** 10071 **2006 2010** VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1059 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_RPP05A00 Rappahannock River MIDDLESEX CO The area delineated in VDH shellfish condemnation 051E, 9/10/1997

RPPMH.

VA Overall AU Category: 5A

Use Impairment 0.14 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Submerged Aquatic Vegetation

The masshali

The mesohaline portion of the Rappahannock failed the SAV acreage standards during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1060 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappah	iannock	River	Basin
--------	---------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

10071

VAP-E26E\_RPP07A02 Rappahannock River LANCASTER CO As delineated in VDH-DSS SFC 053A, 9/16/1993

RPPMH.

VA Overall AU Category:

Use

**Impairment** 

0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 

10071

2006

2010

VAP-E22E-01

The mesohaline portion of the Rappahannock failed the SAV acreage standards

during the 2006 cycle.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1061 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock .	River Basin	
----------------	-------------	--

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID:

10071

VAP-E26E\_STE01A98 **Sturgeon Creek** MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation 104.

Sq. mileage adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category:

Impairment Use

0.09 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006

2010 VAP-E22E-01

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

Aquatic Plants (Macrophytes)

10071

2006

2010

VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1062 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock .	River	Basin
----------------	-------	-------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID: 10071

VAP-E26E\_WHS01B00 Whiting Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

051C, 9/10/1997

AU name fixed and sq. mileage adjusted in 2006, although area did not

change

**RPPMH** 

VA Overall AU Category: 5D

Use Impairment 0.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1063 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock	River	Basin
--------------	-------	-------

Rappahannock River Mesohaline Embayments TMDL Watershed Name:

TMDL Group ID: 10071

VAP-E26E\_XEV01A02 **Windmill Point Yacht Harbor** LANCASTER CO As delineated in VDH-DSS SFC 018-053B, 9/16/1993

AU name corrected in 2006 (prev. RPP07B02)

**RPPMH** 

VA Overall AU Category:

Impairment 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life **Aquatic Plants (Macrophytes)** 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation

**Aquatic Plants (Macrophytes)** 10071 2006

2010 VAP-E22E-01

> The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1064 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River Basin
--------------	-------------

TMDL Watershed Name: Rappahannock River Mesohaline Embayments

TMDL Group ID:

10071

VAP-E26E\_ZZZ01A00 Unsegmented estuaries in E26 LANCASTER CO Unsegmented portion of watershed

MIDDLESEX CO

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 1.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life Aquatic Plants (Macrophytes) 10071 2006 2010 VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharges

Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation Aquatic Plants (Macrophytes)

10071 2006

2010

VAP-E22E-01

The CB standards were implemented during the 2006 cycle. The mesohaline portion

of the Rappahannock failed the SAV acreage standards.

Sources: Agriculture

Atmospheric Deposition - Nitrogen

Clean Sediments

Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat

Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders

Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Final 2006 IR Page 1065 of 2342

Assessment Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Rappahannock River, Beach Creek

TMDL Group ID: 01067

VAP-E25E\_XDV01A02 Beach Creek LANCASTER CO The segment boundaries are delineated in VDH shellfish condemnation

116A, 12/27/2004.

Expanded in 2006

**RPPMH** 

VA Overall AU Category: **5A** 

Use Impairment 0.11 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing Fecal Coliform 01067 1998 2010 VAP-E25E-14

VDH shellfish condemnation 116A, 12/27/2004

Expanded in 2006

Sources: Source Unknown

TMDL Watershed Name: Rappahannock River, Bush Park Creek

TMDL Group ID: 01070

VAP-E26E BPC01A98 Rappahannock River: Bush Park Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

109. 4/27/1989.

Size adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

 Shellfishing
 Fecal Coliform
 01070
 1998
 2010
 VAP-E26E-10

The CB standards were implemented during the 2006 cycle. The mesohaline portion of the Rappahannock failed the open water summer dissolved oxygen criteria and the

SAV acreage standards during the 2006 cycle.

Sources: Source Unknown

Final 2006 IR Page 1066 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin Rappahannock River, Garrett's Marina TMDL Watershed Name: TMDL Group ID: 01050 VAP-E24E\_RPP01B98 **Garrett's Marina ESSEX CO** The segment boundaries are delineated in VDH shellfish condemnation 181A, 11/6/1995. **RPPMH** VA Overall AU Category: Use **Impairment** 0.00 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category **Fecal Coliform** 01050 1998 2010 VAP-E24E-03 Shellfishing VDH shellfish condemnation 181A, 11/6/1995 Sources: Marina/Boating Sanitary On-vessel Discharges Source Unknown Rappahannock River, Mark Haven Beach TMDL Watershed Name: TMDL Group ID: 01065 VAP-E25E RPP01C98 Rappahannock River - Mark Haven Beach **ESSEX CO** The segment boundaries are delineated in VDH shellfish condemnation 026-181B. 11/6/1996. **RPPMH** VA Overall AU Category: **Impairment** 0.01 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01065 1998 2010 VAP-E24E-04 VDH-DSS Shellfish Condemnation 026-181B, 11/6/1995 Sources: Source Unknown Rappahannock River, Sturgeon Creek TMDL Watershed Name: TMDL Group ID: 01093 MIDDLESEX CO VAP-E26E STE01A98 The segment boundaries are delineated in VDH shellfish condemnation 104. Sturgeon Creek Sq. mileage adjusted in 2006, although area did not change **RPPMH** VA Overall AU Category: **Impairment** 0.09 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category 01093 Shellfishing **Fecal Coliform** 1998 2010 VAP-E26E-12 VDH shellfish condemnation 104, 11/28/1994 Sources: Source Unknown

Final 2006 IR Page 1067 of 2342

**Assessment** 

Unit ID	Waterbody Name	C	City / County	Assessment Unit Description
Rappahannock Rive	er Basin			
TMDL Watershed Name:		Rapp	ahannock River, Tid	dal Fresh
TMDL Group ID:	00317			
VAN-E01R_RPP02A00	Rappahannock River		AUQUIER CO PAHANNOCK CO	Segment begins at the confluence with the Jordan River, at rivermile 175.58, and continues downstream until the confluence with an unnamed tributary to the Rappahannock River, at rivermile 173.41.
VA Overall AU Category: <b>5A</b> Use	Impairment 2.17 MILES	TMDL Group ID First Lis	ted on 303(d) TMDL Schedul	le Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	00317 <b>20</b>	06 2010	Sufficient exceedances of the instantaneous E.coli bacteria criterion (4 of 14 samples - 28.6%) were recorded at DEQ's ambient water quality monitoring station (3-RPP175.51) at the Route 647 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for fecal coliform bacteria impairment.
	Sources	Source Unknown		This stream segment was identified in the Plaintiff's List of the 1999 Consent Decree and is subject to the consent decree TMDL schedule.
TMDL Group ID:		Oddiec Officiowii		
,		enc	OTCVI VANIA CO	Commont begins at the confluence with Massananay Creek and continues
VAN-E20E_RPP01A02	Rappahannock River		TSYLVANIA CO TAFFORD CO	Segment begins at the confluence with Massaponax Creek and continues downstream until the outlet of waterbody VAN-E20E. This segment represents the upper reach of VAN-E21E_RPP05A02. Portion of CBP segment RPPTF.
VA Overall AU Category: <b>5A</b> Use	Impairment 0.19 SQUARE MIL	ES TMDI Group ID First Lis	ted on 303(d) TMDL Schedul	le Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	00322 <b>20</b>	* *	Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 13 samples - 15.4%) were recorded at DEQ's Chesapeake Bay/ambient station (3-RPP098.81) at Buoy 112 to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for a fecal coliform bacteria impairment, beginning in 2002.
	Sources:	Source Unknown		
VAN-E20E_RPP02A02	Rappahannock River		TSYLVANIA CO TAFFORD CO	Segment begins at the confluence with Deep Run and continues downstream until the confluence with Massaponax Creek. Portion of CBP segment RPPTF.
VA Overall AU Category: <b>5A</b> Use	Impairment 0.23 SQUARE MIL	ES TMDL Group ID First Lis	ted on 303(d) TMDL Schedul	le Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia coli	00322 <b>20</b>	* *	Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 7 samples - 28.6%) were recorded at DEQ's ambient water quality monitoring station (8-RPP104.47) one hundred yards below the Massaponax Wastewater Treatment Facility to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for a fecal coliform impairment, beginning in 2002.
	Sources:	Source Unknown		

Final 2006 IR Page 1068 of 2342

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin Rappahannock River, Tidal Fresh TMDL Watershed Name: TMDL Group ID: 00322 VAN-E20E\_RPP03A02 Rappahannock River FREDERICKSBURG CITY Segment begins at the fall line at Route One and continues downstream STAFFORD CO until the confluence with Deep Run. Portion of CBP segment RPPTF. VA Overall AU Category: **Impairment** 0.21 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Use Recreation Escherichia coli 00322 2006 2010 Sufficient exceedances of the instantaneous E.coli bacteria criterion (5 of 11 samples - 45.4%) were recorded at DEQ's ambient water quality monitoring station (3-RPP1110.57) at the Route One bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown Recreation 00322 **Fecal Coliform** 2002 2010 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 16 samples - 18.8% and 6 of 13 samples - 46.2%, respectively) were recorded at DEQ's ambient water quality monitoring station (3-RPP107.91) one hundred yards below the Fredericksburg Wastewater Treatment Facility and DEQ's ambient water quality monitoring station (8-RPP110.57) at the Route One bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown VAN-E21E RPP03A02 Rappahannock River **CAROLINE CO** Segment begins at the confluence with Mount Creek and continues KING GEORGE CO downstream until the confluence with Mill Creek. Portion of CBP segment RPPTF. VA Overall AU Category: **Impairment** Use 1.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 00322 Recreation Escherichia coli 2006 2010 Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 14 samples - 14.3%) were recorded at DEQ's ambient water quality monitoring station (3-RPP080.19) at the Route 301 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for a fecal coliform bacteria impairment, beginning in 2002. Sources: Source Unknown Rappahannock River **CAROLINE CO** Segment begins at the confluence with Ware Creek and continues VAN-E21E RPP04A02 KING GEORGE CO downstream until the confluence with Mount Creek. Portion of CBP segment RPPTF. VA Overall AU Category: **Impairment** Use 1.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 00322 Recreation Escherichia coli 2006 2010 Sufficient exceedances of the instantaneous E.coli bacteria criterion (3 of 13 samples - 23.1%) were recorded at DEQ's ambient water quality and Chesapeake Bay monitoring station (3-RPP091.55) at buoy 89 to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for a fecal coliform bacteria impairment, beginning in 2002. Sources: Source Unknown

Final 2006 IR Page 1069 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River	Basin
--------------------	-------

Rappahannock River, Tidal Fresh TMDL Watershed Name:

TMDL Group ID:

00322

VAN-E21E\_RPP05A02 Rappahannock River CAROLINE CO Segment begins at the confluence with Massaponax Creek and continues

STAFFORD CO downstream until the confluence with Ware Creek. The upper reach of this segment (approx. 0.3 sg mi) extends into waterbody VAN-E20E.

Portion of CBP segment RPPTF.

VA Overall AU Category: 5A

Recreation

Use **Impairment** 0.57 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Sufficient exceedances of the instantaneous E.coli bacteria criterion (5 of 13

Escherichia coli 00322 2006 2010 Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 13

samples - 15.4%) were recorded at DEQ's ambient water quality and Chesapeake Bay monitoring station (8-RPP098.81) at buoy 112 to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for a fecal coliform bacteria impairment, beginning in

2002.

Sources: Source Unknown

TMDL Group ID: 00838

VAN-E08R RPP02A02 Rappahannock River **CULPEPER CO** Segment begins at the confluence with Ruffans Run and continues

**FAUQUIER CO** downstream until the confluence with Tinpot Run.

VA Overall AU Category:

Use **Impairment** 2.02 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

00838 2006 Recreation Escherichia coli 2016

samples - 38.5%) were recorded at DEQ's ambient water quality monitoring station (3-RPP0147.10) at the Route 15/29 Business bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed, beginning in 2004, for fecal coliform bacteria

impairment.

Sources: Source Unknown

Final 2006 IR Page 1070 of 2342

**Assessment** 

**Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin Rappahannock River, Tidal Fresh TMDL Watershed Name: TMDL Group ID: 60075 VAN-E02R\_RPP01A02 Rappahannock River **CULPEPER CO** Segment begins at the confluence with Great Run, at rivermile 154.9, and **FAUQUIER CO** continues downstream until the confluence with the Hazel River, at rivermile 147.52. VA Overall AU Category: **Impairment 6.84 MILES** TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Use Recreation Escherichia coli 60075 2006 2018 Sufficient exceedances of the instantaneous E.coli bacteria criterion (6 of 10 samples - 60.0%) were recorded at DEQ's ambient water quality monitoring station (3-RPP150.32) at the Route 651 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown Recreation 60075 **Fecal Coliform** 2006 2018 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (5 of 10 samples - 50.0%) were recorded at DEQ's ambient water quality monitoring station (3-RPP150.32) at the Route 651 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown TMDL Group ID: 60081 VAN-E08R RPP01A02 **CULPEPER CO** Segment begins at the confluence with an unnamed tributary to the Rappahannock River Rappahannock River, at approximately rivermile 142.5, and continues **FAUQUIER CO** downstream until the confluence with Marsh Run. VA Overall AU Category: 5A Impairment 2.85 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Recreation Escherichia coli 60081 2006 2018 Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 7 samples -

28.6%) were recorded at DEQ's ambient water quality monitoring station (3-RPP142.36) at the Route 620 bridge to assess this stream segment as not supporting

of the recreation use goal for the 2006 water quality assessment.

Sources: Source Unknown

Final 2006 IR Page 1071 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River	Basin
--------------------	-------

TMDL Watershed Name: Rappahannock River, Tidal Fresh

TMDL Group ID:

60138

VAN-E20E\_RPP01A02 Rappahannock River

SPOTSYLVANIA CO STAFFORD CO Segment begins at the confluence with Massaponax Creek and continues downstream until the outlet of waterbody VAN-E20E. This segment

represents the upper reach of VAN-E21E RPP05A02.

Portion of CBP segment RPPTF.

VA Overall AU Category: **5A** 

Fish Consumption

Use Impairment

0.19 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

PCB in Fish Tissue 60138 2004 2016

Impairment Specific Comments and/or Impairment Specific VA Category

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, and anadromous (coastal) striped bass consumption to no more than two meals per month. The affected area extends from the I-95 bridge above Fredericksburg downstream to the mouth of the river near Stingray Point, including its tributaries Hazel Run up to the I-95 bridge crossing and Claiborne Run up

to the Route One bridge crossing.

Exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded in two species of fish samples collected in 2001 at monitoring station 3-RPP080.19 (blue

catfish and gizzard shad).

Sources: Source Unknown

VAN-E20E RPP02A02 Rappahannock River

SPOTSYLVANIA CO STAFFORD CO Segment begins at the confluence with Deep Run and continues downstream until the confluence with Massaponax Creek. Portion of CBP segment RPPTF.

VA Overall AU Category:

Use

Impairment

0.23 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Fish Consumption PCB in Fish Tissue

5A

60138 **2004 2016** 

Impairment Specific Comments and/or Impairment Specific VA Category

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, and anadromous (coastal) striped bass consumption to no more than two meals per month. The affected area extends from the I-95 bridge above Fredericksburg downstream to the mouth of the river near Stingray Point, including its tributaries Hazel Run up to the I-95 bridge crossing and Claiborne Run up

to the Route One bridge crossing.

Exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded in three species of fish samples collected in 2001 at monitoring station 3-RPP107.33 (gizzard

shad, channel catfish, and carp).

Sources: Source Unknown

Final 2006 IR Page 1072 of 2342

**Assessment** 

Unit ID	Waterbody Name	City / County	ty Assessment Unit Description
Rappahannock R	iver Basin		
TMDL Watershed Name:		Rappahannock	k River, Tidal Fresh
TMDL Group	ID: 60138		
VAN-E20E_RPP03A02	Rappahannock River	FREDERICKSBURG STAFFORD CO	
VA Overall AU Category: 5 Use		IILES TMDL Group ID First Listed on 303(d)	TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	60138 <b>2004</b>	The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, and anadromous (coastal) striped bass consumption to no more than two meals per month. The affected area extends from the I-95 bridge above Fredericksburg downstream to the mouth of the river near Stingray Point, including its tributaries Hazel Run up to the I-95 bridge crossing and Claiborne Run up to the Route One bridge crossing.
			Exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded in three species of fish samples collected in 2001 at monitoring station 3-RPP107.33 (gizzard shad, channel catfish, and carp). As a result, the waters were assessed not supporting of the CWA's fish consumption use goal.
	Source	es: Source Unknown	
VAN-E20R_CLB01A00	Claiborne Run	STAFFORD CO	Segment begins at the confluence with an unnamed tributary to Claiborne Run, approximately 0.5 rivermile upstream of the Route 1 crossing, and continues downstream until the confluence with the Rappahannock River.
VA Overall AU Category: <b>5</b> Use	A Impairment 4.89 MILES	TMDL Group ID First Listed on 303(d)	TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	60138 <b>2006</b> es: Source Unknown	The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, and anadromous (coastal) striped bass consumption to no more than two meals per month. The affected stretch extends from the Route 1 bridge crossing until the confluence with the Rappahannock River.
	Source	Source Officiowii	
VAN-E20R_HAL01A00	Hazel Run	FREDERICKSBURG SPOTSYLVANIA	
VA Overall AU Category: 5 Use	A Impairment 4.46 MILES	TMDL Group ID First Listed on 303(d)	TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue	60138 <b>2006</b>	The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, and anadromous (coastal) striped bass consumption to no more than two meals per month. The affected stretch extends from the Route 95 bridge crossing until the confluence with the Rappahannock River.
	Source	es: Source Unknown	

Final 2006 IR Page 1073 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock River Basin	Rap	pahann	ock.	River	Basin
--------------------------	-----	--------	------	-------	-------

Rappahannock River, Tidal Fresh TMDL Watershed Name:

TMDL Group ID:

60138

VAN-E21E\_RPP01A02 Rappahannock River

CAROLINE CO KING GEORGE CO

Segment begins at the confluence with Mill Creek, at rivermile 78.94, and continues downstream until immediately upstream of Devils Elbow, at

rivermile 70.52.

Portion of CBP segment RPPTF.

VA Overall AU Category: 5A

Use **Impairment** 

4.50 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Fish Consumption

**PCB** in Fish Tissue

2006 60138

2018

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, and anadromous (coastal) striped bass consumption to no more than two meals per month. The affected area extends from the I-95 bridge above Fredericksburg downstream to the mouth of the river near Stingray Point, including its tributaries Hazel Run up to the I-95 bridge crossing and Claiborne Run up

to the Route One bridge crossing.

Sources: Source Unknown

VAN-E21E RPP03A02 Rappahannock River

**CAROLINE CO** KING GEORGE CO Segment begins at the confluence with Mount Creek and continues downstream until the confluence with Mill Creek.

Portion of CBP seament RPPTF.

VA Overall AU Category: 5A

Fish Consumption

Use

**Impairment** 

1.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

**PCB** in Fish Tissue 60138 2004 2016 Impairment Specific Comments and/or Impairment Specific VA Category

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, and anadromous (coastal) striped bass consumption to no more than two meals per month. The affected area extends from the I-95 bridge above Fredericksburg downstream to the mouth of the river near Stingray Point, including its tributaries Hazel Run up to the I-95 bridge crossing and Claiborne Run up to the Route One bridge crossing.

Exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded in two species of fish samples collected in 2001 at monitoring station 3-RPP080.19 (blue

catfish and gizzard shad).

Sources: Source Unknown

Final 2006 IR Page 1074 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock	River	Basin
--------------	-------	-------

TMDL Watershed Name: Rappahannock River, Tidal Fresh

TMDL Group ID:

60138

VAN-E21E\_RPP04A02 Rappahannock River

CAROLINE CO KING GEORGE CO Segment begins at the confluence with Ware Creek and continues downstream until the confluence with Mount Creek.

Portion of CBP segment RPPTF.

VA Overall AU Category: 5/

Use Impairment

t 1.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Fish Consumption

PCB in Fish Tissue

**PCB** in Fish Tissue

60138 **2004 2016** 

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, and anadromous (coastal) striped bass consumption to no more than two meals per month. The affected area extends from the I-95 bridge above Fredericksburg downstream to the mouth of the river near Stingray Point, including its tributaries Hazel Run up to the I-95 bridge crossing and Claiborne Run up to the Route One bridge crossing.

Exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded in two species of fish samples collected in 2001 at monitoring station 3-RPP080.19 (blue catfish and gizzard shad).

Sources: Source Unknown

VAN-E21E\_RPP05A02 Rappahannock River

5A

CAROLINE CO STAFFORD CO

2004

Segment begins at the confluence with Massaponax Creek and continues downstream until the confluence with Ware Creek. The upper reach of this segment (approx. 0.3 sq mi) extends into waterbody VAN-E20E. Portion of CBP segment RPPTF.

VA Overall AU Category:

Fish Consumption

Use

Impairment

0.57 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

60138

.....

2016

Impairment Specific Comments and/or Impairment Specific VA Category

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 12/13/04, limits American eel, blue catfish, carp, channel catfish, croaker, gizzard shad, and anadromous (coastal) striped bass consumption to no more than two meals per month. The affected area extends from the I-95 bridge above Fredericksburg downstream to the mouth of the river near Stingray Point, including its tributaries Hazel Run up to the I-95 bridge crossing and Claiborne Run up to the Route One bridge crossing.

to the Route One bridge crossing.

Exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded in two species of fish samples collected in 2001 at monitoring station 3-RPP080.19 (blue catfish and gizzard shad).

Sources: Source Unknown

Final 2006 IR Page 1075 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

TMDL Watershed Name: Richardson Creek

TMDL Group ID: 01049

VAP-E24E\_RIC01A04 Richardson Creek RICHMOND CO Tidal limit to mouth (within SFC 025-071A, 12/22/2004)

**RPPMH** 

VA Overall AU Category: 5A

Use Impairment 0.15 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing **Fecal Coliform** 01049 **1998 2010** VAP-E24E-06

Portion of VDH Shellfish Condemnation 071A, 12/22/2004

Previous condemnations included Totuskey and Richardson Creeks. In 2004, the segment was shortened and the creeks were separated. However, in 2006 the segments were both recombined under 025-071A, 12/22/2004 and extended into the Rappahannock (see VAP-E24E-06)

Sources: Source Unknown

TMDL Watershed Name: Robinson Creek

TMDL Group ID: 00197

VAP-E25E\_ROS01A00 Robinson Creek MIDDLESEX CO Boundaries delineated in VDH shellfish condemnation 177, 5/28/1997.

RPPMH

VA Overall AU Category: 5D

Use Impairment 0.18 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Fecal Coliform 00197 1998 2014 Category 4A

VAP-E25E-02

In 2002, the segment was also assessed as not supporting the Recreation Use due to fecal coliform violations at the end of Route 680 (3-ROS001.35). The violation rate in the 2004 cycle was 4/20. There has been no additional monitoring since 2001. The fecal coliform criteria for Shellfish is more stringent, therefore the impairment is considered to be addressed by the existing shellfish TMDL (cat. 4A)

Sources: Non-Point Source

Final 2006 IR Page 1076 of 2342

**Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin **Robinson Creek** TMDL Watershed Name: TMDL Group ID: 10082 VAP-E25E\_ROS02A04 **Robinson Creek** MIDDLESEX CO Described in VDH Shellfish Condemnation 177, 2/25/2004, not otherwise segmented Extended in 2006 cycle **RPPMH** VA Overall AU Category: **Impairment** Use 0.29 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

10082 Shellfishing **Fecal Coliform** 2006 2018 VAP-E25E-22

> The upstream portion of Robinson Creek was assessed in 1998 as not supporting the Shellfish Consumption Use based on VDH-DSS Condemnation 177, 5/28/1997. The TMDL for this original portion was completed and approved by EPA on 11/15/2005. During the 2006 cycle, however, the condemnation was extended downstream. The

TMDL for this segment is due in 2018.

Sources: Non-Point Source

TMDL Group ID: 76650

MIDDLESEX CO Boundaries delineated in VDH shellfish condemnation 177, 5/28/1997. VAP-E25E\_ROS01A00 **Robinson Creek** 

**RPPMH** 

5D VA Overall AU Category:

**Assessment** 

**Impairment** 0.18 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use

Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing **Fecal Coliform** 76650 1998 2005 Category 4A

VAP-E25E-02

The upstream portion of Robinson Creek was assessed in 1998 as not supporting the Shellfish Consumption Use based on VDH-DSS Condemnation 177, 5/28/1997. The TMDL for this original portion was completed and approved by EPA on 11/15/2005. The segment should be classified as Cat. 4A, however the EPA TMDL ID was not

available at the time of assessment.

Sources: Non-Point Source

Final 2006 IR Page 1077 of 2342

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin TMDL Watershed Name: Robinson River TMDL Group ID: 00214 VAN-E14R\_ROB01C00 **Robinson River** MADISON CO Segment begins at the confluence with the Rose River, just downstream of Route 670, and continues downstream until the crossing of Route 231, rivermile 21.58. VA Overall AU Category: 5D **Impairment** 2.92 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Recreation 00214 2006 2005 Sufficient exceedances of the instantaneous E.coli bacteria criterion (6 of 15 Escherichia coli samples - 40.0%) were recorded at DEQ's ambient water quality monitoring station (3-ROB024.06) at the Route 649 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. A bacteria TMDL for the Robinson River watershed was submitted to the U.S. EPA and approved December 12, 2005. Nonpoint sources of fecal coliform are primarily agricultural (i.e., land-applied animal waste, manure deposited directly on pastures by livestock, and a significant fecal coliform load due to cattle directly depositing manure in streams) with a significant load applied to residential and forest land use categories. Non-agricultural anthropogenic nonpoint sources of fecal coliform loadings include straight pipes, failing septic systems, and pet waste. Wildlife contributes to fecal coliform loadings on all land uses, according to the acceptable habitat range for each species. Segment listed as Category 4A - Federal ID NA. Sources: Grazing in Riparian or Shoreline Zones Impacts from Land Application of Wastes Livestock (Grazing or Feeding Operations) Runoff from Forest/Grassland/Parkland Sewage Discharges in Unsewered Areas Wastes from Pets Waterfowl Wildlife Other than Waterfowl TMDL Group ID: 00846 **MADISON CO** Segment begins at the confluence with the Rose River, just downstream of VAN-E14R ROB01C00 Robinson River Route 670, and continues downstream until the crossing of Route 231, rivermile 21.58. VA Overall AU Category: 5D **Impairment** 2.92 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 00846 Aquatic Life Temperature, water 2004 2016 Sufficient exceedances of the instantaneous temperature criterion (6 of 29 samples -20.7%) were recorded at DEQ's ambient water quality monitoring station (3-

Final 2006 IR Page 1078 of 2342

Sources: Source Unknown

ROB024.06) at the Route 649 bridge to assess this stream segment as not supporting

of the aquatic life use goal for the 2006 water quality assessment.

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin **Robinson River** TMDL Watershed Name: TMDL Group ID: 60091 VAN-E14R\_ROB01A06 **Robinson River MADISON CO** Segment begins at the confluence with Leathers Run and continues downstream until the confluence with White Oak Run. VA Overall AU Category: 5A Impairment 3.45 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Recreation Escherichia coli 60091 2006 2018 Sufficient exceedances of the instantaneous E.coli bacteria criterion (3 of 21 samples - 14.3%) were recorded at DEQ's ambient water quality monitoring station (3-ROB017.24) at the Route 638 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown TMDL Watershed Name: **Rose River** TMDL Group ID: 60113 VAN-E14R ROE01A02 Rose River MADISON CO Segment starts at rivermile 2.6, approximately 0.36 rivermile downstream from the confluence with Strother Run, and continues downstream until the confluence with the Robinson River. VA Overall AU Category: **Impairment** 2.60 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Temperature, water 60113 Aquatic Life 2006 2018 Sufficient exceedances of the instantaneous temperature criterion (3 of 17 samples -17.6%) were recorded at DEQ's ambient water quality monitoring station (3-ROE000.75) to assess this stream segment as not supporting of the aquatic life use goal for the 2006 water quality assessment. Sources: Source Unknown

Final 2006 IR Page 1079 of 2342

**Assessment** 

**Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin **Rush River** TMDL Watershed Name: TMDL Group ID: 00833 VAN-E05R\_RUS02A02 **Rush River** RAPPAHANNOCK CO Segment begins at the confluence with an unnamed tributary to the Rush River, at rivermile 8.78, and continues downstream until the confluence with Big Branch, approximately 0.98 rivermile upstream of Route 621. VA Overall AU Category: **Impairment 4.55 MILES** TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Use Recreation Escherichia coli 00833 2006 2014 Sufficient exceedances of the instantaneous E.coli bacteria criterion (4 of 9 samples -44.4%) were recorded at DEQ's ambient water quality monitoring station (3-RUS005.66) at the Route 683 bridge, upstream of Route 211/522, to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was previously listed for a fecal coliform bacteria impairment. Sources: Source Unknown Recreation **Fecal Coliform** 00833 2002 2014 Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (4 of 18 samples - 22.2%) were recorded at DEQ's ambient water quality monitoring station (3-RUS005.66) at the Route 683 bridge, upstream of Route 211/522, to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. The segment was first listed for fecal coliform bacteria impairment in 2002. Sources: Source Unknown **Senior Creek** TMDL Watershed Name: TMDL Group ID: 01092 LANCASTER CO The boundaries are described in VDH shellfish condemnation 021-132B. VAP-E26E SEN01A00 **Senior Creek** 3/27/2002. Size adjusted in 2006 cycle, although area did not change. **CRRMH** VA Overall AU Category: **Impairment** 0.06 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01092 1998 2010 VAP-E26E-08 VDH shellfish condemnation 021-132B, 3/27/2002 Sources: Source Unknown

Final 2006 IR Page 1080 of 2342

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin TMDL Watershed Name: South Run TMDL Group ID: 60077 VAN-E02R\_SUT01A04 South Run **FAUQUIER CO** Segment begins at the confluence with Tanner Branch and continues downstream until the confluence with Carter Run. VA Overall AU Category: **Impairment** 3.93 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Recreation Escherichia coli 60077 2006 2018 Sufficient exceedances of the instantaneous E.coli bacteria criterion (6 of 22 samples - 27.3%) were recorded at DEQ's ambient water quality monitoring station (3-SUT002.62) at the Route 737 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Source Unknown TMDL Watershed Name: **Taylor Creek** TMDL Group ID: 01094 LANCASTER CO The boundaries are described in VDH shellfish condemnation 021-205. VAP-E26E TAY01A00 **Taylor Creek** 3/27/2002. Size reduced in 2004 cycle. **CRRMH** VA Overall AU Category: **Impairment** 0.09 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01094 2004 2016 VAP-E26E-03 VDH shellfish condemnation 205 was rescinded in 2002 cycle and then reopened on 3/27/2002 Sources: Source Unknown The Big Swamp TMDL Watershed Name: TMDL Group ID: 10106 RICHMOND CO Headwaters to mouth at Cat Point Creek VAP-E23R TBS01A06 The Big Swamp WESTMORELAND CO VA Overall AU Category: **Impairment** Use **6.80 MILES** TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Oxygen, Dissolved 10106 2006 2018 VAP-E23R-15 Aquatic Life During the 2006 cycle, The Big Swamp was assessed as not supporting the Aquatic Life Use based on a dissolved oxygen violation rate of 2/15 at 3-TBS003.39. This segment is nested within VAP-E23R-01. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 1081 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock Riv	ver Basin					
TMDL Watershed Name:	Thornton River					
TMDL Group IE	600	78				
VAN-E05R_THO01A02	Thornton River			RAPPAHANNOC	K CO	Segment begins at the confluence with White Walnut Run, approximately 0.8 rivermile downstream of Route 621, and continues downstream to the confluence with the Rush River.
VA Overall AU Category: <b>5A</b> Use	Impairment	3.38 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedul	le Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	Escherichia	a coli	60078	2006	2018	Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 8 samples - 25.0%) were recorded at DEQ's ambient water quality monitoring station (3-THO014.37) at the Route 626 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. There was insufficient data to determine a fecal coliform bacteria impairment (1 of 8 samples - 12.5%).

Sources: Source Unknown

VAN-E06R\_THO02A02 **Thornton River CULPEPER CO** Segment begins at the confluence with Mill Run, at rivermile 8.65, and RAPPAHANNOCK CO continues downstream until the confluence with an unnamed tributary to the Thornton River, at rivermile 3.25.

VA Overall AU Category: Use

Impairment TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Recreation Escherichia coli 60078 2006 2018 Sufficient exceedances of the instantaneous E.coli bacteria criterion (2 of 10 samples - 20.0%) were recorded at DEQ's ambient water quality monitoring station (3-THO006.50) at the Route 729 bridge to assess this stream segment as not supporting

of the recreation use goal for the 2006 water quality assessment.

Sources: Source Unknown

5.40 MILES

Final 2006 IR Page 1082 of 2342

**Assessment Assessment Unit Description** City / County **Unit ID Waterbody Name** Rappahannock River Basin TMDL Watershed Name: **Totuskey Creek** TMDL Group ID: 01030 VAP-E24E\_TOT01A00 **Totuskey Creek** RICHMOND CO The segment boundary is delineated in VDH condemnation 071B, 12/22/2004. Sq. mileage adjusted in 2006, although area did not change **RPPMH** VA Overall AU Category: **Impairment** Use 0.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life Chloride 01030 2004 2016 VAP-E24E-02 In addition, in the 2004 cycle the segment was assessed not supporting of the Aquatic Life and Wildlife Uses based on chloride violations at 3-TOT005.11. The segment remained impaired in 2006. The chloride TMDL is due in 2016. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Wildlife Chloride 01030 2004 2016 VAP-E24E-02 In addition, in the 2004 cycle the segment was assessed not supporting of the Aquatic Life and Wildlife Uses based on chloride violations at 3-TOT005.11. The segment remained impaired in 2006. The chloride TMDL is due in 2016. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed VAP-E24E TOT02A00 **Totuskey Creek** RICHMOND CO Downstream of VDH shellfish condemnation 025-071B, 12/22/2004 (within 025-071A, 12/22/2004). **RPPMH** 5A VA Overall AU Category: **Impairment** 0.75 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life Chloride 01030 2004 2016 VAP-E24E-02 In the 2004 cycle the segment was assessed not supporting of the Aquatic Life and Wildlife Uses based on chloride violations at 3-TOT005.11. The segment remained impaired in 2006. The chloride TMDL is due in 2016. Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Wildlife Chloride 01030 2004 2016 VAP-E24E-02 In the 2004 cycle the segment was assessed not supporting of the Aquatic Life and

Final 2006 IR Page 1083 of 2342

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Wildlife Uses based on chloride violations at 3-TOT005.11. The segment remained

impaired in 2006. The chloride TMDL is due in 2016.

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River 1	Basin
----------------------	-------

TMDL Watershed Name: Totuskey Creek

TMDL Group ID:

01051

VAP-E24E\_TOT01A00 Totuskey Creek RICHMOND CO The segment boundary is delineated in VDH condemnation 071B,

12/22/2004.

Sq. mileage adjusted in 2006, although area did not change

**RPPMH** 

VA Overall AU Category: 54

Use Impairment 0.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation **Enterococcus** 01051 **2006 2014** VAP-E24E-02

Totuskey Creek was previously assessed as not supporting the Recreation Use because of fecal coliform violations at the Route 3 bridge (3-TOT005.11). During the

2006 cycle, the segment remained impaired for fecal coliform with a violation rate of 3/21. In addition, enterococci was added as an impairment with a violation rate of

3/9. The bacteria TMDL is due in 2014.

Sources: Municipal Point Source Discharges

Source Unknown

Recreation Fecal Coliform 01051 2002 2014 VAP-E24E-02

Totuskey Creek was previously assessed as not supporting the Recreation Use because of fecal coliform violations at the Route 3 bridge (3-TOT005.11). During the 2006 cycle, the segment remained impaired for fecal coliform with a violation rate of 3/21. In addition, enterococci was added as an impairment with a violation rate of

3/9. The bacteria TMDL is due in 2014.

Sources: Municipal Point Source Discharges

Source Unknown

Final 2006 IR Page 1084 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin TMDL Watershed Name: **Totuskey Creek** TMDL Group ID: 01051 VAP-E24E\_TOT02A00 **Totuskey Creek** RICHMOND CO Downstream of VDH shellfish condemnation 025-071B, 12/22/2004 (within 025-071A, 12/22/2004). **RPPMH** VA Overall AU Category: 5A Use **Impairment** 0.75 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 2006 2010 VAP-E24E-02 01051 Recreation Enterococcus Totuskey Creek was previously assessed as not supporting the Recreation Use because of fecal coliform violations at the Route 3 bridge (3-TOT005.11). During the 2006 cycle, the segment remained impaired for fecal coliform with a violation rate of 3/21. In addition, enterococci was added as an impairment with a violation rate of 3/9. The bacteria TMDL is due in 2014. Sources: Municipal Point Source Discharges Source Unknown Recreation **Fecal Coliform** 01051 1998 2014 VAP-E24E-02 Totuskey Creek was previously assessed as not supporting the Recreation Use because of fecal coliform violations at the Route 3 bridge (3-TOT005.11). During the 2006 cycle, the segment remained impaired for fecal coliform with a violation rate of 3/21. In addition, enterococci was added as an impairment with a violation rate of 3/9. The bacteria TMDL is due in 2014. Sources: Municipal Point Source Discharges Source Unknown TMDL Group ID: 10074 VAP-E24E TOT01A00 **Totuskey Creek** RICHMOND CO The segment boundary is delineated in VDH condemnation 071B, 12/22/2004. Sq. mileage adjusted in 2006, although area did not change **RPPMH** VA Overall AU Category: **Impairment** 0.36 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Aquatic Life Sediment Bioassays for Estuarine and Marine 10074 2006 2018 VAP-E24E-02 Water During the 2006 cycle, estuarine probabilistic monitoring was conducted through the Coastal 2000 program at 3-TOT007.84 and 3-TOT004.92. The data was assessed by CO through the Weight of Evidence approach. Although both stations showed benthic

Final 2006 IR Page 1085 of 2342

Sources: Source Unknown

alteration, the alteration at station 3-TOT007.84 was assessed as Category 5A for

toxics. The TMDL is due in 2018.

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin **Totuskey Creek** TMDL Watershed Name: TMDL Group ID: 10074 VAP-E24E\_TOT02A00 **Totuskey Creek** RICHMOND CO Downstream of VDH shellfish condemnation 025-071B, 12/22/2004 (within 025-071A, 12/22/2004). **RPPMH** VA Overall AU Category: Use **Impairment** 0.75 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 2006 2018 VAP-E24E-02 Aquatic Life **Sediment Bioassays for Estuarine and Marine** 10074 Water During the 2006 cycle, estuarine probabilistic monitoring was conducted through the Coastal 2000 program at 3-TOT007.84 and 3-TOT004.92. The data was assessed by CO through the Weight of Evidence approach. Although both stations showed benthic alteration, the alteration at station 3-TOT007.84 was assessed as Category 5A for toxics. The TMDL is due in 2018. Sources: Source Unknown TMDL Group ID: 10107 **Totuskey Creek** RICHMOND CO The nontidal portion of Totuskey Creek VAP-E24R TOT01A06 VA Overall AU Category: 5A **Impairment** 8.46 MILES Use TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category 10107 VAP-E24R-02 Recreation Escherichia coli 2006 2018 During the 2006 cycle, the nontidal portion of Totuskey Creek was assessed as not supporting the Recreation Use due to an E. coli violation rate of 2/9 at 3-TOT009.95. Further monitoring is recommended. Sources: Source Unknown TMDL Watershed Name: **Town Creek** TMDL Group ID: 01095 LANCASTER CO VAP-E26E TON01A00 **Town Creek** The boundaries are described in VDH shellfish condemnation 187A. 3/27/2002. Size adjusted in 2006, although area did not change **CRRMH** VA Overall AU Category: **Impairment** 0.02 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category 01095 Shellfishing **Fecal Coliform** 2002 2014 VAP-E26E-07 VDH shellfish condemnation 187A, 3/27/2002 Sources: Source Unknown

Final 2006 IR Page 1086 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Urbanna Creek

TMDL Group ID: 00198

VAP-E25E\_URB02A00 Urbanna Creek MIDDLESEX CO As delineated in VDH shellfish condemnation 042A, 9/17/1993.

Sq. mileage adjusted in 2006

**RPPMH** 

VA Overall AU Category: 5D

Use Impairment 0.24 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing Fecal Coliform 00198 1998 2005 Category 4A

VAP-E25E-04

The segment is assessed as impaired of the Shellfish Consumption Use based on VDH-DSS Shellfish Condemnation 042A, 9/17/1993. The TMDL was completed and approved by EPA on 11/15/2005 and the segment should be assessed as Cat. 4A.

Sources: Municipal Point Source Discharges

Non-Point Source

TMDL Group ID: 01785

VAP-E25E URB01A00 Urbanna Creek MIDDLESEX CO As described in VDH-DSS SFC 42B, 9/17/1993.

Sq. mileage adjusted in 2006

RPPMH

VA Overall AU Category: 5A

Use Impairment 0.22 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Recreation Fecal Coliform 01785 2004 2016 VAP-E25E-19

The segment was assessed in 2004 as not supporting of the Recreation Use based on a fecal coliform violation rate of 3/20 at 3-URB001.50, located at the end of Route 418. There has been no additional monitoring at this station since 2001; therefore, although the violation rate was 0/8 during the 2006 assessment window, the segment

must remain listed until further data can be collected.

Sources: Source Unknown

Final 2006 IR Page 1087 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** 

Rappahannock I	River	Basin
----------------	-------	-------

TMDL Watershed Name: Ware Creek

> TMDL Group ID: 00852

VAN-E21R\_WAE01A04 **Ware Creek CAROLINE CO** Segment begins at the headwaters of Ware Creek and continues

downstream until the confluence with an unnamed tributary to Ware Creek,

just downstream from Burma Road.

VA Overall AU Category:

Aquatic Life

Use

**Impairment** 

pН

2.94 MILES

TMDL Group ID First Listed on 303(d) TMDL Schedule

00852

Impairment Specific Comments and/or Impairment Specific VA Category

2016 Sufficient exceedances of the instantaneous pH criterion (2 of 2 samples - 100%) were recorded at DEQ's freshwater probabilistic monitoring station (3-WAE005.95) at

the Fort A.P. Hill property to assess this stream segment as not supporting of the

aguatic life use goal for the 2006 water quality assessment.

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

TMDL Watershed Name: Weeks (Mudd) Creek

TMDL Group ID:

01066

VAP-E25E\_WEE01A00 **Weeks Creek** MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

2004

202. 10/8/1996.

**RPPMH** 

VA Overall AU Category:

Use

**Impairment** 

0.12 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule

Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing **Fecal Coliform** 01066 1998 2010 VAP-E25E-09

> The segment was assessed as not supporting of the Shellfish Use during the 1998 cycle due to VDH shellfish condemnation 202, 10/8/1996. This segment is now a portion of SFC 202A, 9/3/2003. The TMDL was completed for the original 1998 segment during the 2006 cycle and approved by EPA on 11/15/2005. The segment should be categorized as Cat. 4A for Shellfish, however the EPA TMDL ID was not

available at the time of assessment.

Sources: Non-Point Source

Final 2006 IR Page 1088 of 2342

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Weeks Creek

TMDL Group ID: 10079

VAP-E25E\_WEE02A04 Weeks Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

202A, 9/3/2003, not otherwise delineated.

RPPMH

VA Overall AU Category: **5A** 

Use Impairment 0.10 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing **Fecal Coliform** 10079 **1998 2018** VAP-E25E-08

This segment is a portion of SFC 202A, 9/3/2003 during the 2006 cycle. Although a TMDL was completed for Weeks Creek and approved by EPA on 11/15/2005, it only

covers the original upstream 1998 impairment.

Sources: Non-Point Source

TMDL Watershed Name: Western Branch Corrotoman River, Unnamed Tributary

TMDL Group ID: 10121

VAP-E26R\_XEY01A06 UT to Western Branch Corrotoman River LANCASTER CO Headwaters to mouth at Western Branch Corrotoman River

VA Overall AU Category: 5C

Use Impairment 3.30 MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Aquatic Life pH 10121 2006 2018 VAP-E26R-02

During the 2006 cycle, unnamed tributary XEY was considered impaired of the Aquatic Life Use based on a pH violation rate of 3/10 at the Route 604 bridge (3-

XEY001.00).

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2006 IR Page 1089 of 2342

**Assessment Assessment Unit Description Waterbody Name** City / County **Unit ID** Rappahannock River Basin White Oak Run TMDL Watershed Name: TMDL Group ID: 60092 VAN-E14R\_WHO01A06 White Oak Run MADISON CO Segment begins at the Town of Madison's raw water intake, approximately 0.4 rivermile upstream from the Route 657 crossing, and continues downstream until the confluence with the Robinson River. VA Overall AU Category: **Impairment 3.42 MILES** TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category Use Recreation Escherichia coli 60092 2006 2018 Sufficient exceedances of the instantaneous E.coli bacteria criterion (5 of 5 samples -100%) were recorded at DEQ's ambient water quality monitoring station (3-WHO003.42) at the Route 657 bridge to assess this stream segment as not supporting of the recreation use goal for the 2006 water quality assessment. Sources: Grazing in Riparian or Shoreline Zones Impacts from Land Application of Wastes Livestock (Grazing or Feeding Operations) Runoff from Forest/Grassland/Parkland Sewage Discharges in Unsewered Areas Wastes from Pets Waterfowl Wildlife Other than Waterfowl TMDL Watershed Name: Whitehouse Creek TMDL Group ID: 01096 VAP-E26E\_WHR01A00 Whitehouse Creek LANCASTER CO The boundaries are described in VDH shellfish condemnation 187D. 3/27/2002 Size adjusted in 2006, although area did not change **CRRMH** VA Overall AU Category: **Impairment** 0.05 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Use Impairment Specific Comments and/or Impairment Specific VA Category Shellfishing **Fecal Coliform** 01096 1998 2010 VAP-E26E-33

Final 2006 IR Page 1090 of 2342

Sources: Source Unknown

VDH shellfish condemnation 187D, 3/27/2002

Assessment
Unit ID Waterbody Name City / County Assessment Unit Description

Rappahannock River Basin

TMDL Watershed Name: Whiting Creek

TMDL Group ID: 00201

VAP-E26E\_WHS01B00 Whiting Creek MIDDLESEX CO The segment boundaries are delineated in VDH shellfish condemnation

051C, 9/10/1997

AU name fixed and sq. mileage adjusted in 2006, although area did not

change

**RPPMH** 

VA Overall AU Category: **5D** 

Use Impairment 0.20 SQUARE MILES TMDL Group ID First Listed on 303(d) TMDL Schedule Impairment Specific Comments and/or Impairment Specific VA Category

Shellfishing Fecal Coliform 00201 1998 2005 Category 4A

VAP-E26E-24

VDH shellfish condemnation 051C, 9/10/1997

The Shellfish TMDL was completed during the 2006 cycle and approved by EPA on 11/15/2005. The segment should be considered Category 4A for Shellfish, although

the EPA TMDL ID was not available at the time of assessment.

Sources: Non-Point Source

Note: \* Includes Category 4A and 4C Impairments within each Assessment Unit. Assessment Units may extend across jurisdictional boundaries.

Final 2006 IR Page 1091 of 2342